RCMA

NEWSLETTER

FEBRUARY 1986

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OF MONITOR RADIO LISTENERS

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RCMA NEWSLETTER

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Boca Raton, FL 33431

ASSISTANT EDITOR

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1 West Potomac
Williamsport, MD 21795

FOR YOUR INFORMATION:

1. Input to the RCMA Newsletter must be mailed to the proper editors, whose addresses are included in the individual column headlines. If no particular column seems appropriate, send input to RCMA, 1 West Potomac, Williamsport, MD 21795.

2. To forward a letter to a specific RCMA member whose address you do not know, put your message to that person in a stamped envelope with your return address on it; mail to RCMA General Manager, P.O. Box 542, Silverado, CA 92676.

3. PLEASE INCLUDE YOUR RCMA MEMBERSHIP NUMBER WITH ALL CORRESPONDENCE to newsletter editors or club headquarters.

4. If you require a reply when writing to RCMA headquarters or to one of the editors, you MUST enclose a self-addressed, stamped envelope.

5. Please write on only one side of the paper.

6. Please don't combine in one letter several items that should go to different addresses.

7. If you want to type what you submit to the newsletter, please don't exceed a seven-inch column width and please single space. Doing this may save an editor from having to retype the material. Please don't use script type.

8. Your RCMA membership number and expiration date appear on your newsletter mailing label.

9. You may join or renew your membership for ONLY one year at a time.

10. RCMA accepts paid advertising. For information on advertising rates and mechanical requirements, contact Carol Ruth, RCMA Advertising Manager, P.O. Box 542, Silverado, CA 92676.

RCMA NEWSLETTER

ISSUE 120 FEBRUARY 1986

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RCMA, Inc., P.O. Box 4563, Anaheim, CA 92803

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CONTACTING RCMA?

Membership applications or renewals, address changes, inquiries about delivery or renewal problems:

Write to: RCMA General Manager
P.O. Box 542
Silverado, CA 92676

Comments or questions about RCMA club policy or newsletter content:

Write to: William Mauldin, RCMA General Editor
2268 N. W. 30th Rd.
Boca Raton, FL 33431

Letters for publication in "Your Thoughts" column:

Write to: Ginny Slick
1 West Potomac
Williamsport, MD 21795

Correspondence sent to RCMA's Anaheim Post Office Box will still be answered, but there will be a 4-6 week delay.

Air traffic controllers at work in the tower cab at Los Angeles International Airport.

PHOTO BY HUGH STEGMAN

The RCMA Newsletter is published by members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, Inc., P.O. Box 4563, Anaheim CA 92803. Subscription rate/membership fee is $16.50 for U.S. residents. For persons in other countries, the following rates apply: Canada and Mexico—$18.50; Europe—$20.00, South Pacific and Asia—$21.50. These dues are payable in U.S. funds and are subject to change. Information contained herein is obtained primarily from members and does not necessarily present the position or reflect the opinion of RCMA as a whole. The RCMA does not necessarily recommend or endorse products or services advertised herein. The publication is copyrighted ©. Reproduction of any material in this newsletter is prohibited without prior written consent.

CALENDER

Send notices of upcoming events for the Calender section to:
John R. Clark, 2701 Fairview Road, Costa Mesa, CA 92620
Deadline: 1st of the month two months prior to cover date.

R.C.M.A. Greater L. A. Area Chapter

Contact : Eric J. Christensen (CA-LA-045) KA6IHT 224.66 MZz
P.O. Box 3962 Santa Fe Springs, CA 90670-1962

Friday 24 January 1986 General meeting 8:00 PM Mercury Savings
Lincoln & Valley View, Buena Park, Elevator in rear.

"Computer Data Bases & Use of CompuServe" There are 2 SIGs available to our hobby "Amateur Radio" and "Land Mobile Radio" Bring anything you have for sharing with the group.

Friday 28 February 1986 Tour -Tentative- 8:00 PM

Pacific Telephone, Micorwave Center, 420 N. Grand, Los Angeles From this building, most telephone calls and TV video signals are microwaved to the San Francisco Bay area and other areas.

Saturday 29 March 1986 Tour 12:30 PM *** note 5th Saturday ***

Los Angeles International Airport Tower --park in LAX Tower lot. The tour follows the TRW Amateur Swap Meet which runs 7 AM to 11 AM. The TRW Swap Meet is at Aviation & Marine in Redondo Beach well worth visiting before the tour. You will have time for lunch.

Friday 25 April 1986 Tour 8:00 PM Los Angeles PD Dispatch Center ECCCS

City Hall East 4th floor basement. 200 N. Main Street, Los Angeles Parking is anywhere you can. This tour is one of the best we have.

Saturday 24 May 1986 Tour 11:30 AM *** note 4th Saturday ***

United States Forest Service - South Zone Communications Center 2524 Mulberry, Riverside (S.W. corner of SR 91/SR 60 Freeways) Best exit from SR 60 at first available exit from SR 91 going East, and hook back over SR 91 on Spruce St. This is the home of 415.525 South Zone Dispatch where major fires are coordinated.

R.C.M.A. West Los Angeles Chapter

Contact : Hugh Stegman (CA-LA-472) (213) 473-8333
11622 Exposition Blvd #2, Los Angeles, CA 90064

NEW GROUP!!

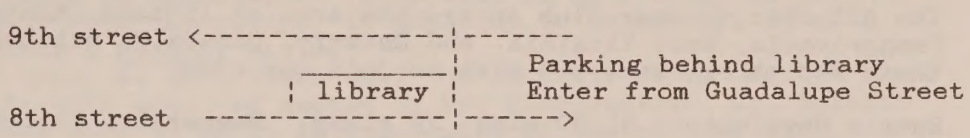
RCMA is now forming a chapter for the West Los Angeles area, including Culver City, Santa Monica, Beverly Hills, and all other surrounding communities. We have no intention of competing with the existing Greater L.A. RCMA Chapter, and we hope that members will feel free to attend either group's meetings. However, we offer a change for this area's many RCMA members to enjoy frequency swapping and activities without the long drive to Orange County. We hope that we can thus benefit RCMA as a whole.

Meetings will be at 7:30PM on the 2nd Wednesday of every month, at Shakey's (formerlly Tilley's) 5604 Sepulveda Blvd., Culver City. This is where Sepulveda intersects Playa and Jefferson, a block north of the 405 freeway and Fox Hills Mall.

February	12	Computer applications in monitoring. This program will be oriented toward the biginner. Bring listings and related software.
March	12	Open subject at this time
April	9	Open subject at this time

Austin Area Radio Listeners Meeting

Meeting every 2nd Tuesday 6:45 PM Austin Public Library 4th floor room B. For more information, contact Richard Quintanilla TX 043 Austin Radio Club, P.O. Box 5053, Austin TX 78763



R.C.M.A. Chicago

Contact Edward Robert Sirovy IL-004 312 969 2856
311 S. Williams Street, Westmont, Il 60559

Meetings: (After the January 18, meeting there may be a change in the location as it appears NANCINI may loose his lease)

NANCINI'S Resturant 5555 St Charles Road, Berkeley, IL two blocks east of St Charles Road exit from Eisenhouer Expressway Extention I-290 (phone 312 544 7277)

The doors open about 12:15 PM. The parking lot session begins before noon. Official meeting over by 5:00 PM.

Saturday	January	18	1986	12:30 PM
Saturday	March	8	1986	12:30 PM
Saturday	April	19	1986	12:30 PM
Saturday	June	7	1986	12:30 PM
Saturday	August	2	1986	12:30 PM
Sunday	August	17	1986	Field Exercise (Shoe Factory Woods)
Saturday	September	27	1986	12:30 PM
Saturday	November	15	1986	12:30 PM

Visitors are welcome but please confirm the date in advance.

A SASE on file assures notification of tours and other items which may be scheduled on short notice.

R.C.M.A. for D.C., MD, VA, & DE

Contact: Capitol Hill Monitors % Alan Henney (MD 069)
6912 Prince Georges Ave, Takoma Park, MD 20912

R.C.M.A. Minneapolis—St. Paul Area

Contact: Chuck Steier MN-008 (612) 927-9253
4820 Hwy 7, Minneapolis, MN 55416

A SASE on file assures notification of chapter activities (tours, gatherings, etc). Non members are welcome to attend.

Southern New England Scanners Club

Contact Maurice Dennis Dandeneau RI-017 SNEC President 401-732-0812
P.O. Box 7052, Warwick, RI 02887 (modem on phone)

R.C.M.A. Wisconsin

Contact Scott W. Miller WI-039
122 Greenbriar Drive, Sun Prairie, WI 53590

All Ohio Scanner Club

Contact : Dave Jones Treasurer or John Thyne Secretary
P.O. Box 148, Vandalia, Ohio 45377

The All Ohio Scanner Club covers the area of Indiana, Kentucky, Michigan, Pennsylvania, West Virginia, and Ontario, Canada.We welcome members from these and other areas who wish to join our club.

Sample Newsletter: $1.00 plus .39 stamp. Membership information for a large SASE to the Post Office Box listed above.

To contact David B. Marshall OH-146, Managing Editor,
50 Villa Road, Springfield, OH 4503-1036

NEED BACK ISSUES OF THE RCMA NEWSLETTER:

Lots (Months/Year)	No. of Issues	Price
Sept 75 — June/July 76 (No Oct. or Nov. Published)	7	$2.00
August — Dec. 76 (No Oct. Published)	4	$3.00
Jan. — June 77	6	$4.00
July — Dec. 77	6	$4.00
Jan. — June 78	6	$5.00
July — Dec. 78	6	$5.00
Jan. — June 79	6	$6.00
July — Dec. 79	6	$7.00

1980—to date issues are available at $1.50 per copy

Order Total	Include This Amount of Postage
$ 1.50 — $ 5	$1.20
$ 5.50 — $10	$2.25
$10.50 — $15	#3.30
$15.50 — $25	$4.15
$25.50 — $35	$5.50
Over $35	$7.00

Send your request & check/M.O. (payable to RCMA) to:
RCMA General Manager
P.O. Box 542
Silverado, CA 92676

your thoughts

Ginny Slick, Assistant Editor
1 West Potomac, Williamsport, MD 21795

To the Editor:

I am prompted to write to you by the comments voiced by many RCMA members in California regarding SB1431, the bill to ban the manufacture and sale of scanners that receive the 800MHz band.

I am unequivocally opposed to this measure, even though I am not a resident of California, the bill has nationwide ramifications and therefore, I think it is important for non-Californians t study and comment upon this issue. There are several reasons why I think this bill is a terrible one.

1. Since when do cellular mobile phone users have the same right to privacy protection as land-line users? This is the argument advanced by David Roberti, California Senate President pro Tempore, as quoted by Kiril Kundurazieff (CA-LA 595) in the October newsletter, in support of the bill. It is fallacious. Cellular mobile phone users are not ordinary phone users, they are radio operators. Let's call them what they are; they are people who are using radio waves to communicate instead of doing so over a wire. That simple fact alters the whole right of privacy question. The privacy rights of radio operators are protected in a different manner than those of land-line phone users.

Land-line phone communication takes place over a controlled system,i.e. the communication is contained within the wire, and any attempt by me to listen in entails my breaching the controlled system, such breach constituting a breach of privacy since I must intentionally hook up some kind of tapping device to monitor. But radio communication is a different matter altogether--it is not controllable, I might,in fact,under bizarre propagation conditions, be able in New York-- to receive a cellular phone conversation from California. Am I to be forbidden by the California legislature, which I did not elect, from using an MX 7000? The proposition would be ludi-

crous. Recognizing this, the Federal government has made radio communication a Federal matter and, since the people--and not the government- own the airwaves, while the people communicating own the message being sent, a balance has been struck: the people have the right to listen, but divulging the message or using the message to ones own advantage is punishable. This bill is an attempt to tip the balance away from the people, in addition to an attempt by a state to regulate a Federal matter.

2. Beyond this, we must learn what the motivations of the backers of this bill are. As quoted by Mr. Kundurazieff, Mr. Roberti states, "It does seem to me it is reasonable to impose some kind of penalties to attempt to protect the Cellular Phone Industry," The key word is Cellular. What about the rest of the mobile phone industry--those that use the other VHF and UHF bands found on other types of scanners? Are they not worthy of protection too?

The fact is that the Cellular Phone Industry has done well since its recent inception because of its ability to sell itself as different from those other mobile phone services, both technologically as well as by the fact that until recently scanners to monitor the 800 MHz range were rare, if not nonexistant. Well, along come the new scanners: now people are thinking twice before laying out the money to replace their VHF mobile phone system with the cellular system. This hurts the cellular phone industry, which is trying a circuitous and highly questionable route to protect its competitive advantage, in my opionion.

3. Finally, the whole idea is ridiculous. I would like to inform anyone who believes that this bill will protect cellular mobile phone privacy to realize that I can, and indeed have been able to monitor cellular phone conversations without an 800MHz scanner. How? Very simple--the 800MHz range is simply what used to be the upper channels of the UHF TV band. My UHF tuner does quite well, thank you in picking up nearby phone 'cells'.

No, the people who are supporting this bill are not fooling me. The ends appear to be economic, not constitutionalrights-oriented. Chief Justice Marshall once wrote, "Let the ends be legitimate--and all means which are appropriate--which are not prohibited--are constitutional. The end in this bill borders on the illegitimate and the means are highly irregular. This is, in short, a bad and possibly dangerous piece of legislation.

Sincerely,
Richard E. Berg-Andersson
(NY-319)

To the Editor:

Here in California , just recently, the governor had signed into law the Telephone Privacy Act, which would make it a misdemeanor to knowingly monitor a cellular phone conversation. I don't know who will be enforcing this law, but if you listen to the regular mobile phone channels on a regular basis, you will have a hard time explaining to an officer that you are not listening to 'cellular phones'.

In light of this I would like to encourage all of our membership to familiarize themselves with the Communications Act of 1934. They will find that many of its provisions cover listeners as well as licensed operators. You can obtain a copy from the local library or Superintendant of Documents. It specifically forbids disclosure of contents of telephone conversations or telegrams.

We need to police ourselves a little more closely now that laws such as the Privacy Act are being passed. Either we do it, or someone else will do it for us. (Uncle Sam?)

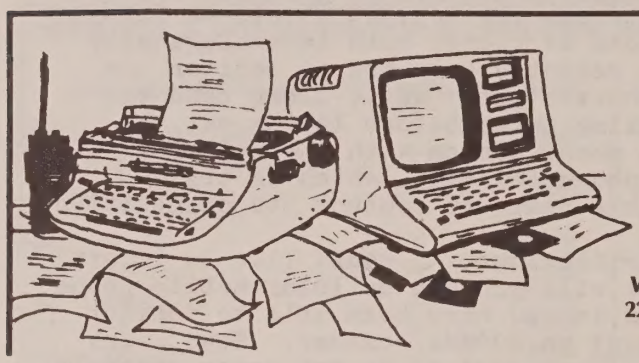
Sincerely,
Don Ramos (CA -OR 275)

To the Editor:

I have just read my December 1985 issue of the newsletter. It took all but ten minutes to do. This issue is the biggest waste of space I have ever seen in any publication. I pay for twelve months of information on frequencies, systems, etc.; not eleven months of same, and one monthe entirely devoted to an index. If you"re going to do an index, either mail it separately or double the size of each December issue to accomodate the extra print.

I also feel that each member should be credited one issue on his subscription as a result of this bonehead move. I believe I've made my point clear. Are there any other comments?

Steve Jester (KS-011)



From The CAPTAIN'S DESK

William Mauldin, RCMA General Editor
2268 N.W. 30th Rd., Boca Raton, FL 33431

ELECTRONICS COMMUNICATIONS PRIVACY ACT OF 1985

As this article is being written, the "Electronics Communications Privacy Act of 1985" is still in the hands of those in Congress who will soon decide what you will be listening to in the future. The Editoral last month alerted you to these Bills (S.1667 in the Senate, H.R.3378 in the House). If you did not read the information in last months editorial, I strongly urge you to get last month's edition and read it over!

To aid those of you who wish to write your representives regarding these Bills, we have attached a special centerfold for your use. I can not urge you strongly enough to write your representives about these Bills! Unless the "Electronics Communications Privacy Act of 1985" is defeated, you will soon find your monitoring serverely restricted! We are only a small group, so it is important for each one of you to write your representive about your opposition to the Bills, and ask them to vote against them when they come to the floor!

The Cellular telephone industry is pushing both Bills very strongly, and they are continuing to advertise that their communications are "private". If they have their way, it will be "private" because it will be illegal for you to listen to these frequencies, and illegal for scanner manufacturers to make receivers that will cover "private frequencies", plus some others! I understand the FCC and the Department of Justice are not in favor of the Bills, but we must gather all possible opposition in order to defeat the pending laws. Again, I urge you to write your representives, express your opposition, and ask for copies of both Bills and progress reports on what is happening in Washington regarding this matter.

I am not a telephone conversation monitoring buff, but I know that many of you are. Since being made aware of the Bills and what the pending legislation can and will do to our monitoring rights, I have started listening to the 800 MHz Cellular phone band. After about an hour of monitoring, I can certainly confirm that most of those using the service seem to feel that sales pitches on "private communications" are being taken to heart by those using the service. I haven't heard that many four letter words commonly used in conversation since my tour in the armed forces! Frankly, I am surprised that the FCC doesn't present the users of the service with citations for obsene language on the airwaves! It certainly isn't a band you want to leave on the scanner when the kids are around! The old VHF/UHF phone service carried it's share of bad language and poor taste conversations, but the 800 MHz service makes the old VHF/UHF phone conversations seem like a G rated movie. If the interest in this service grows, and it might, we might even consider a mobile phone editor to keep us up to date on what is taking place in the field! Any comments?

COMING ATTRACTIONS - NEW COLUMNS COMING

I am pleased to announce that we have made three new editor appointments this month. As I write this column, we have appointed new editors to the columns of PUBLIC SAFETY NORTHEAST, NEWS MEDIA, and NEW PRODUCT REVIEW! I again wish to thank all of you who made application for the positions. If you were not appointed, I hope you will continue to apply in the future! We need good talent, and your help, interest and desire to join the editor ranks is always appreciated!

The new Editor of PUBLIC SAFETY NORTHEAST is Tom Ernst, NJ-164. Tom presented a very impressive package and list of qualifications. He has been a firefighter and communications officer with the Springfield, NJ Fire Department. He has experience and is qualified in communications, photography, and runs his own company which deals with Fire Apparatus. I am sure those of you who are Public Safety Northeast buffs will be pleased with Tom as the editor of the column! Congratulations, Tom!

PUBLIC SAFETY NORTHEAST EDITOR
Mr. Tom Ernst, NJ-164
207 Milltown Road
Springfield, New Jersey 07081

The new Editor of NEWS MEDIA is Allen G. Henney, MD-069! Allen has long expressed interest in News Media communications, and he presented a very impressive package in his application. We have long considered a column devoted to the communications used by newspapers and radio and TV stations. Many professional monitoring buffs have long said if you want to know what is going on in your area, listen to the News Media first! They often have sky cameras, reporters and other personnel on an exciting scene before the police even get started. I am looking forward to seeing Allen work with the information in this field, and I know he will appreciate and require your support to make the new column a success!

NEWS MEDIA COMMUNICATIONS
Mr. Allen G. Henney, MD-069
6912 Prince Georges Avenue
Takoma Park, MD 20912

As a direct result of your 1985 General Membership survey, we have another new column which will start soon... NEW PRODUCT REVIEW was the most asked for subject in the survey, and I am pleased to announce the appointment of Jim Abdu, GA-058, as the new Editor of our NEW PRODUCT REVIEW! Jim is an Electronics Maintenance Engineer with the Georgia State University, and certainly well qualified to report to you on the new products being introduced into our hobby daily! Keeping Tech Topics and New Product Review from crossing subject lines will not be a problem, as both will report to you on the technical information that we all need to make our hobby more enjoyable. Steve Kayworth and Jim Abdu will work both together and separately to bring you the best technical columns available today! Steve will devote most of his column to information on general technical topics, and report on new products whenever it is appropriate. Jim will devote his material to the NEW products that continue to enter the marketplace. I am looking forward to seeing this column develop and will watch with interest as Jim reports on the new products as they are available!

NEW PRODUCT REVIEW
Mr. Jim A. Abdu, GA-058
1203 North Crossing Way
Decatur, Georgia 30033

NEW PUBLICATIONS ON MONITORING

We received an announcement this month from Geoff Wilford, CAKE 022, about a new directory devoted to the Kern County CA area. Geoff advised that the new book, ON SCENE, will cover the complete area in and around Kern County, California. The frequency listings will be divided into ten sections, with detailed lists of subjects, codes and other useful materials. If you are interested in more information about ON SCENE, which will sell for $6.81, postage paid, you can write to TLW Research, 4909 Stockdale Highway, Suite 174, Bakersfield, CA 93309. Geoff mentioned that they will be advertising with us soon!

FREQUENCIES FOUND DURING FLORIDA DRUG RAID

Newspapers across the county carried articles this month about a major drug raid in Florida, and pointed out that as part of the material found in the possession of the alleged smugglers

was a 62 page list of frequencies. The list included information on the channels used by DEA, the Secret Service, Air Force frequencies used by intelligence groups, CIA channels, channels used by Air Force One and the Presidential Security teams. The Associate Press said in their article that the FCC knew of no location where the information contained on the list were available. The article said "indisputable evidence exists which demonstrates that military and law enforcement radio communication frequencies of enormous sensitivity are in the possession of criminals and that criminals actively monitor those frequencies."

News articles of this nature certainly don't promote our hobby in the eyes of the general public. Although RCMA policy prohibits the publication of "sensitive" frequencies, it is hard for some to understand why we have such a policy until something like this reaches the public in big headlines. I was pleased to note that none of the articles point to RCMA and our Newsletter as a place where this information was obtained. Although some so called "sensitive" federal frequencies are common knowledge, we find that we must continue to support our club policy regarding the intentional printing of such information. We, the staff, thank you for your continued support and understanding in such matters. We thank Bill, MD-005, for bringing this to our attention!

CLOSING COMMENTS

This has been a most interesting year for me and for RCMA. Our first General Membership Survey was printed, and has helped us to make our club publication fit the needs and desires of our membership. As I write this column in December, I am pleased to see our photo cover taking shape, three new editors appointed, and other changes in the planning stage. In a few months, our 1986 General Membership Survey will be printed. I urge you to think about our club and our NEWSLETTER, and when the Survey is printed, take part and voice your feelings. We want to produce a publication which will serve your needs and interests.

Our unpaid editors devote many hours each month to their columns. Your continued input and support is always needed and appreciated! Also, remember to enclose a stamped self-addressed envelope or card with your material contribution for acknowledgement. It may seem like a small gesture to you, but it really helps the editor when responding. My thanks to all of you for your continued input and support of OUR club!

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS
NEWS HIGHLIGHTS

ANARC is a federation of the most responsible, well established radio listening clubs in North America. RCMA attained Full Member status in ANARC in 1977. For a list of the ANARC Member and Associate Member clubs send a self-addressed, stamped business size envelope with your request to the address below.

Write to Joe Barr, 1500 Bunbury Dr., Whittier, CA 90601, for the following:
- Copy of ANARC Club List — Sent 25¢ and an SASE (business size)
- Sample Copy of ANARC Newsletter — Send 60¢ and an SASE (business size)
- Annual Subscription to ANARC Newsletter — $7.50 for residents of U.S., Canada, and Mexico; $10 Overseas (Airmail)

Effective immediately all ANARC related mail should be addressed to:

Richard T. Colgan, ANARC Executive Secretary
Post Office Box 180403, Austin TX 78718-0403

ANARC 1986 Convention will be held July 18-20 in Montreal, Quebec, Canada, hosted by Ian McFarland and Radio Canada International. The Convention Hotel is Holiday Inn, Place Dupuis, 1415 St. Hubert St. Montreal, Quebec, Canada. All sessions will be held at the hotel.

New ANARC Club Representatives.

Dr. Richard Wood	International Radio Club of America
Dick Truax	National Radio Club

Central Maryland Dx Association meets on the 2nd Monday of each month. for information contact Tony Kobylski (301) 563 0039 Adelaide, Australia, 5001, Australia.

The Old Dominion DXers, a local SWL club serving Southern Virginia and North Carolina, and would like to contact DXers in these areas. For infor¥ mation to future meetings, send a SASE to: Old Dominion DXers,· 625 Charlecote Drive, Virginia Beach, VA 23464.

St. Louis Area Gateway DX Club, 836 Lamplight Lane, Hazelwood, MO 63042, is organizing to conduct DXpeditions and meetings for SW and AM (MW) DXers. For information send a SASE to above address.

Radio Earth has made an official request for a shortwave radio station license in Curacao, Netherlands Antilles, Carabbean Sea. Radio Earth has purchased a transmitter which is now being modified to frequencies between 2 and 28 MHz. Radio Earth is a pioneer in the commercial showrtwave radio field. The new station should be up by mid-1986. For information send a SASE to Radio Earth 1724 Sherman Ave., Evanston, IL 60601. or phone (314) 492-9300.

The Union of Asian DXers is having a membership drive. If you are interes¥ ted in listening to radio stations in South Asia and the Far East, the UADX newsletter may be helpfull. For information send 3 I.R.C.s from USA to UADXm 32/4a Malwatte Road,· Dehiwale, Sri Lanka.

BOOKS OF INTEREST

"ANTIQUE RADIOS" Restoration and Price Guide, by David and Betty Johnson, published by Wallace-Homestead Book Co, 580 Waters Edge Road, Lombard, IL 60148 price $10.95. Radio Enters The Home - RCA 1922, reprinted by Vestal Press, Ltd Vestal, NY 13850 price 10.00.

"Secrets of Successful QSL'ing." A new book by Garry L. Dexter, scheduled for publication January 1986, price $9.95 plus $1.00 for shipping to USA $2.00 to other areas. Order from Tiare Publications, P.O. Box 493, Lake Geneva, WI 53147.

"Radio Receivers * Chance or Choice" by Ranier Lichte. A well illustrated 256 page book with reviews of more than 70 receivers, late models as well as older ones. $18.50 + $1.50 shipping from Gilfer Associates, Inc., 52 Park Ave., Box 239, Park Ridge, NJ 07656.

AIRCRAFT

Send private, commerical, firefighting and law enforcement aircraft frequencies of interest in the 108-136 MHz range and frequencies in other bands above 30 MHz associated with airports and aircraft plus questions, articles and tips related to aircraft monitoring to:

Darrel Charest, 1913F Oak Creek Lane, Bedford, TX 76022

By now we should be used to the arrival of new grandchildren, but each is a separate experience in itself. Another is due soon, so we have our bags packed ready for "Wheels up" and on to Colorado on a moments notice. This newest arrival will be number eight, and birthdays, holidays as well as other festive occasions are beginning to tax grandad's poor memory and finances. If we get anymore I may find myself in the market for a computer to keep track of all of them.

Last month Santa brought me a new Yaesu FRG-9600. At the time I wrote the January column I had only several days experience with the receiver. Since that time, however, I have been locked together with the unit for many days on end. Initially I was very disappointed with the performance of the scanner. But like a new pipe or new pair of shoes, after its broken in you tend to be more pleased with your purchase. This has proven to be the case with the Yaesu FRG 9600. Yet there are functions in the receiver with which I am not satisfied, and I have expressed my displeasure to the American Representative. I have not yet had a reply and do not expect one for a few days because its only been a week since I wrote.

Most of our members have indicated they would like to have larger print in the Newsletter, and I can easily understand why. As you know, our editors are not paid for their contributions and its not really cost effective for me or the other editors to purchase another typewritter or computer for the express purpose of composing our column. Even so, I think we have good magazine and an group of readers that provide a great deal of help to the editors.

During the past month I wrote to our General Editor, Capt. Mauldin, for help in locating some of the Airline Company frequencies. He replied by saying that he would provide us with a computer print-out for ARINC and list company frequencies by airline. You can look forward to this in later issues of the RCMA Newsletter.

One of our members, John Gerler, GA-061, called long distance from Atlanta a few weeks ago to give me some information on Eastern Airlines Communications. We had a most interesting conversation that must have cost John a small fortune. He informed me that Eastern Airlines operates a communications network for the parent company and forty three other airlines. He mentioned U.S. Air, Republic and Air Midwest among those using Eastern for their communications requirements. John promised he would write later with more details on the operation. Some of the frequencies they use are listed at the end of the column.

From Wisconsin, Gary Thomas, WI-078, wrote to explain some of the excellent information available in the aviation band that can be found in the Wisconsin Airport Directory. These directories are available from the Wisconsin Deptartment of Transportation, Map and Document Sales, 3617 Pierstorff, Madison, Wisconsin 53704. Charge for the directory is $2.50. Many states do publish airport/aviation directorys. Some are available for the asking, others ask a small fee for printing and distributing, as does Wisconsin. Nearly anything you could wish to know about an airport in your state may be found in these publications.

Last month Kevin Bathrick, NY-314, submitted several pages of aircraft frequencies for the Northeastern part of the U.S. and space would not permit including all of these. So we'll pick up where we left off last month.

New York State and New Jersey

Albany	AC	122.45
Albany	Ground	121.7
Albany	Departure	125.0
Albany	AC E & S	125.0
Albany	FSS	122.45
Albany	Tower	119.5
Albany	AC W & N	126.6
Albany County		124.7
		119.5
Boston Center (Albany Remote Site)		126.35
		132.65
		133.85
Glenns Falls	FSS	123.6
Schenectady	Tower	126.2
Schenectady County	Tower	121.3
		122.4
		122.5
		125.0
Buffalo	AC	125.15
	AC	134.05
	Dept.	125.5
	Tower	120.5
	AC East	123.8
	AC West	126.5
Rochester	ATIS (VOR)	116.4
Tompkins County		119.6
		120.0
	Ground	121.8
	FSS	123.6
	American Airlines	129.2
		129.25
		129.425
		129.85
	Capitol Airlines	131.3
Duchess County	Tower	124.0
Islip, Long Isl.	Tower	119.3
La Guardia	Tower	118.7
Newark	Tower	118.3
Kennedy	Tower	119.1
Morristown	Tower	118.1
Westchester	Tower	119.7
Delta Airlines		130.1
		129.55
		131.95
Eastern Airlines		128.925
		129.85

	FSS	122.2
	FSS	122.6
	Ground	121.9
Command Airways		130.95
Empire Airways		131.625

Niagara Falls		
	Tower	118.5
La Guardia	Approach	118.0
		120.88
	Departure	120.4
	Clearance	135.2
	Ground	121.7
		121.85
	Tower	119.95
Terminal Control		126.05

Mc Arthur	Approach	120.05
	Ground	121.7
	Tower	124.3

New York Center	120.95
	127.3
	127.35
	127.45
	127.6
	127.7
	132.95
	135.45
	127.95
	132.2
	133.1
	134.8

New York Police	
Helicopter	123.0 (Unicom)

Newark	Approach	126.7
		128.55
	Departure	135.35
	Ground	121.6
		121.8
	Clearance	118.85
	Tower	134.05
Terminal Control		127.85

Pan American Airlines	129.8
Scandanavian Airlines	130.45
Transworld Airlines	129.4
	129.65
	129.32
United Airlines	129.35
	129.3
	129.5

Suffolk Airport	125.3

Rochester	Tower	118.0
		118.3
		130.95
		130.7
Irish Airlines		131.125

Flushing Unicom	122.8

Elmira	Tower	121.1
	Departure	120.0
	Approach	119.4
	Approach	118.15
	Approach	119.55
		123.7
		120.7
		125.95
	Departure	121.0
Airex		123.5

Hancock	Tower	120.3
	Ground	121.7
	Unicom	122.95
	Approach	118.85

Syracuse	124.6

Oneonta	Unicom	122.8

Watertown	118.85
	120.3
	121.7
	123.6

Calverton	Navy	121.3
		128.65

Grumman Bethpage	121.3
	126.2
Binghamton Tower	119.3
Approach	118.6
	126.1

Marthas Vineyard	121.4

Nantucket	118.3

Utica	Tower	118.1
	Approach	118.5
		126.65

Republic Airlines	118.8
	131.75
Stewart	121.1

- -

Miscellaneous

Goodyear Blimp Operations	132.0

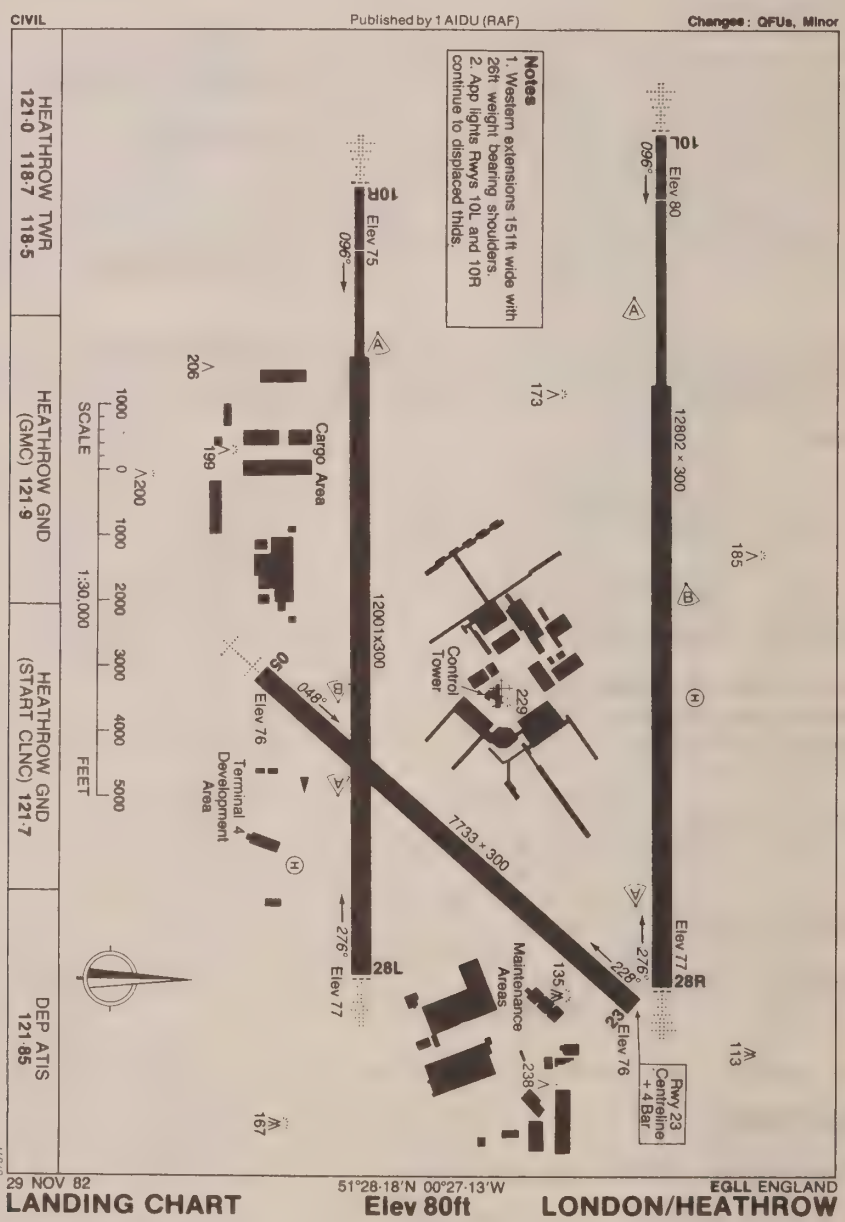
Aeronautical Enroute	130.95
	131.525
	131.75

- -

From John Gerler Eastern Airlines Communications Nationwide

Atlanta northeast to New York	130.9
Atlanta and South Georgia	130.875
New York Chicago Indianapolis and south to Gulf of Mexico	130.45
Dallas west to Pacific Coast	130.95
Atlanta Minneapolis to Seattle	130.75
Jacksonville Miami San Juan	130.7

During the past month I also received a nice letter and some airport charts from Geoff Halligey, our "Below 30 Mhz" Editor. The airport taxi charts are for the three main international airports in the U.K., Heathrow, Gatwick and Manchester. These are similar to many taxi charts found in the approach books for many U.S. airports. Some of the symbols are different and I haven't been able to decode all of them. On the Manchester and Heathrow charts you may see a circle with a cross through it. I assume this depicts the geographical center of the airport. This never appears on U.S. taxi charts, yet some of the regulations related to flying make reference to the center of the airport.



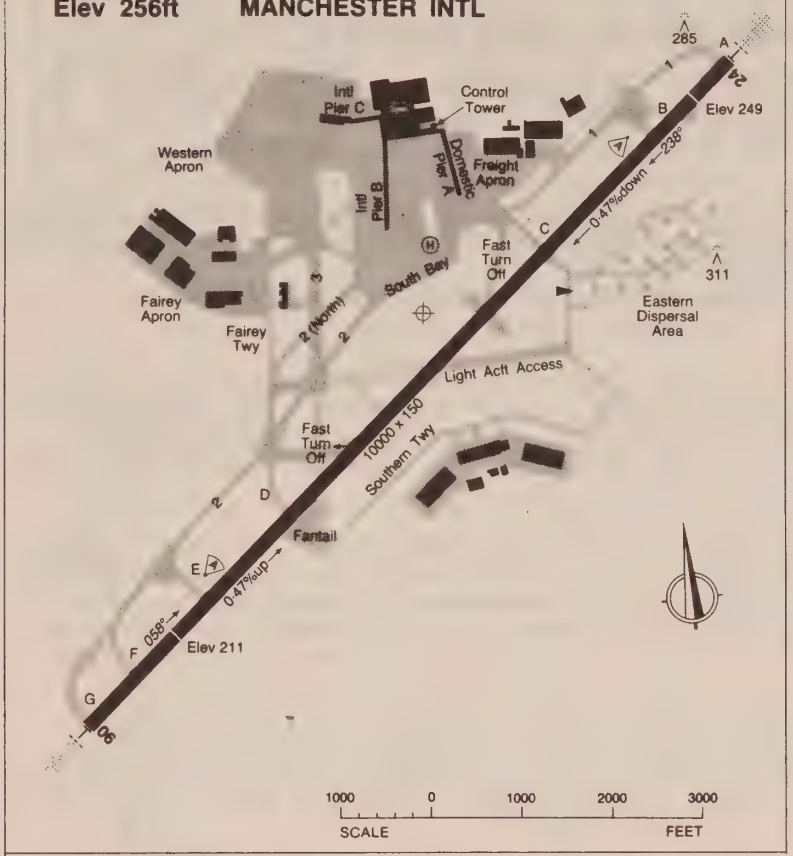
CIVIL — Published by 1 AIDU (RAF) — Changes: Notes, Minor

MANCHESTER TWR	MANCHESTER GND		ATIS
118·7	121·7		128·175

53° 21·37'N 02° 16. 33'W

EGCC ENGLAND

Elev 256ft MANCHESTER INTL



1. PAPIs (GS 3°) TCH Rwy 06 - **70ft**
   Rwy 24 - **67ft**.
2. During Cat II and III operations:
   a. Enter rwy by Link A or G as appropriate only.
   b. Leave rwy by fast turn off or Link A or G as appropriate only.
   c. Follow lighted twy centreline.
3. Company freqs: SPEEDBIRD MANCHESTER 131·85
   SERVISAIR MANCHESTER 130·6

101E

1 MAY 85

LANDING/TAXI CHART

CIVIL — Published by 1 AIDU (RAF) — Changes: Minor

GATWICK TWR	GATWICK GND	START CLNC	ATIS (dep)
124·225 127·55	121·8	121·95	121·75

11 NOV 83

LANDING CHART

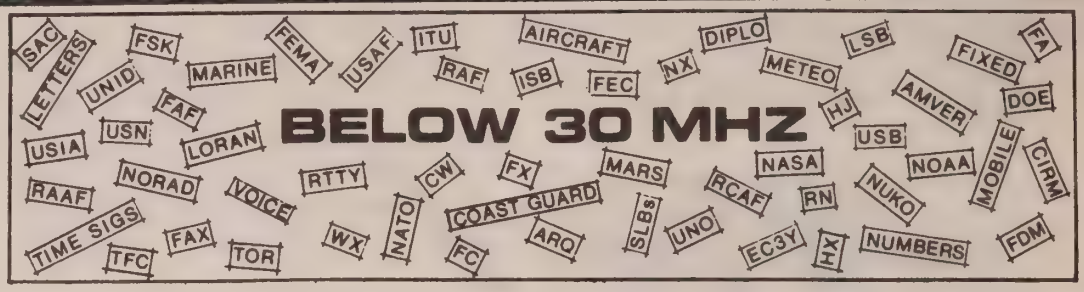
51°09·17'N 00°11·40'W

Elev 202ft

EGKK ENGLAND

LONDON/GATWICK

1. Avoid overflying built up areas N & S of A/D.
2. Tall trees to S of & parallel to rwy.
3. **Company freq** SPEEDBIRD GATWICK **131·475**



This column is for HF AM, CW, SSB, RTTY and FAX reception reports, note, articles, and questions related to HF utilities. Services covered in this column include aeronautical, coastal/marine, weather, government, military and 'spy' stations — essentially everything except broadcasting, CB and amateur radio.

Send reports to: Geoff Halligey, 85 Southwood Road, Cottingham, England, HU16 5AJ.

RUSSIAN JAMMING

We have all heard the Russian jammers trying to blot out VoA and BBC broadcasts. Bob (IL-267) has logged a few of these nuisances on 11 and 15 MHz, but they can be heard on any band. Indeed, on MF the Radio Free Europe (RFE) transmitter in Berlin is permanently jammed by anything up to six jammers, all operating at the same time.

All of the jammers radiate a letter/figure or a 2-letter ident, usually sent twice and repeated at about 60 second intervals. It is understood that most of them are located near all large USSR cities in order to prevent as many of the populace as possible from hearing the broadcasts, but there are also many high powered jammers encircling the whole of the Soviet Union.

A recent report in the London 'Times' stated that the Russians are spending between 700 and 1000 million dollars a year to maintain these transmitters. They are particularly anxious to jam the BBC's Russian and Polish services and they use more transmitters for jamming than do the BBC, VoA and RFE together for broadcasting.

Nevertheless, says the Times, the BBC's Russian programmes alone have a regular audience of about 14 million people - a poor return for such vast expenditure.

THOSE CARRIER CLUSTERS

Another Bob, from Lawrence, Kansas, writes that the multi-carrier signals that have been reported on several frequencies (Nov. '85 issue) have nothing to do with U.S. OTH radar, but are in fact multiplexed carriers (MUX) used for data, FAX, phone patches and other routine USAF traffic.

The 'order wire' (i.e. telephone operator) conversations are normally heard on the LSB of such trunks, and this is where the I.D. such as 'ACROBAT' is heard.

Similar signals have been reported from Ascension Is. (Aug. & Sept. '85 issues), but in these cases the carriers were suppressed and the 'order wire' was heard only by chance.

Bob also says that ACROBAT has nothing to do with Andrews AFB, although it is still so quoted on several outdated lists of tactical callsigns. ACROBAT is at present the call of McDill AFB Technical Control and can be heard frequently working a station with the call OKLAHOMA.

Hugh Stegman (CA-LA-472), our Pictures Editoe, has also recorded these clusters, or MUX transmissions, noting particularly Andrews AFB 'MYSTIC STAR' on 6780 kHz and 'QUEBEC' on 6761 testing with some very long echoes, indicating a satellite path.

But Hugh also heard a different sort of cluster, spread out every 14 kHz from 10086 up on 12th October '84 at 0015 UTC.

Another item of note is the large number of unidentified CW transmissions on the air these days -- 5-figure and 3- figure groups; 5-letter groups (usually with accented letters indicating eastern Europe or Asian origin), but all without callsigns or any other form of id. They just come and go.

LETTERS AND NUMBERS

Some new ones. The first four were heard in Pula, Yugoslavia; the next three in Los Angeles by Hugh Stegman and the last one in Cottingham.

3820.0	USB	....	Numbers in GG	2201
4595.0	USB	PB	Letters in PAB/YL	0633
4875.0	USB	....	Numbers in GG, but with unusual pronunciation, 'dray' for 'drei'	2203
5448.5	USB	....	Numbers in Czech/YL,	0957
			but on the same day, 5FG in CW this freq.	1051
6783.5	AM	....	Numbers in SS/YL	0334
6917.0	AM	....	Numbers in SS/YL	0829
10345.0	AM	....	Numbers in SS/YL, fast tape	0515
11243.0	USB	....	Letters in PAB/OM, Israel	1137

The above were all heard in October/November.

CHANNEL MARKERS

Something unusual was heard on 29th October, first heard at 1136 UTC and intermittently until 1406.

First there was some broken up morse, eventually resolving into CCC on 11335.9 and at the same time PPP on 11336.3. This went on for a few seconds, then silence.

Later at 1241 the PPP transmitter came up with MRVD de QRFP QSA? K. Then there were more P's and C's and at 1400 more morse calls; finally PPP came up alone until 1406.

Was this the birth pangs of a new cluster ? Nothing heard since.

On 9352.0 a marker comes up one or two days a week, coding AAA. When on, it has been heard between 0700 and 1530 UTC. Occasionally it sends one, two or three 5-figure groups repeated several times; these groups are always similar and the second figure is nearly always zero. Here are some examples:

30406	10524	30711	30029	30420	10477
30251	30478	20455	10589	40521	30133
		10397	31258		

For a few weeks it came up every Saturday and Sunday; then it changed to once every 6 days. Work that one out !

There is a reference in Michiel Schaay's 'U.S.Military Communications' (recently reviewed in this column) to the U.S.Navy's submarine detecting dorp buoys which transmit CW/data bursts at 140 watts to satellites, which trigger them. Question - what is a 'dorp buoy ?

Hugh Stegman reports hearing 'O' and 'C' markers in the 6801.0 to 6805.0 cluster on the west coast of the U.S.A. for the first time (see June June and August '85 issues). He also reports a new one in this cluster, namely 'F' on 6801.5.

DIPLOMATIC TRANSMISSIONS - AUSTRALIA

Bob Horvitz has sent me a news item concerning the Australian Dept. of Defence which is establishing a radio intercept station in Canberra to monitor Embassy transmissions.

The new station will have over 20 HF and LF receivers plus a transmitter and a control centre. Intercepts will be passed to the Defence Signals Directorate in Melbourne for decyphering and analysis.

THIS MONTH'S LOG

3287.0	CW	CKN	Vancouver BC, Maritime Radio, Can. Forces NAWS bulletin	0108
3892.5	CW	FDY	Orleans Air, France, French AF	0156
4320.0	CW	NMG	New Orleans, LA. USCG, nav. warnings (new frequency ?)	0121
5168.0	CW	....	unid slow 5FG, as FEMA but no id	0230
5554.0	CW	....	unid 2FG followed by 3FG	1310 C

5691.0	USB	....	air/ground comms in GG	1055	C
6676.0	USB	....	Singapore Volmet	0823	
6730.0	USB	....	'BROADBEAM' + unusual RTTY. USAF		
6837.0	CW	837	unid with 5FG/cut zeros	0312	
7778.0	CW	2M8	unid, 5FG & 3/5FG 100 & 1700 daily		C
7919.0	USB	....	'SHAGLINE' - USAF in flight	1102	C
8896.0	USB	....	A/G HF using Selcal and ICAO phonetic alphabet. Russian ?	daily	C
11176.0	USB	....	USAF 'on ground Brindisi waiting for Sigonella (Sicily) to clear'		C
11213.0	USB	....	USAF phone patch to Mildenhall (England) met		C
11226.0	USB	....	Lajes Volmet at H+00,30 (Azores) 1030 -1530 Wx for Lajes, Ramstein, Mildenhall & Rhein-Main. Also came up on 11226.5 on 19 Nov.		C
11300.0	USB	....	Cairo clg Khartoum (AFI-3)	1100	C
11425.0	USB	....	'Vigeri, Vigeri, Warsava Radio' calls. Have also heard snatches of BBC bcasts on this freq.	1022	C
13011.0	CW	AQP	Karachi Naval Radio marker - AQP 4/5/6/7	1533	C
14368.5	Piccolo		unid	2138	
14454.0	CW	CLP33	Addis Ababa, Ethiopia - Cuban Embassy	1838	
14455.0	USB	....	NASA 'AMES' in circuit with '706'	1726	
14458.5	USB	CIW605	Can. Forces Amateur Radio Network wkg '202'	1720	
14563.0	USB	....	Cyprus R/T Maritime Radio Service clg loop	1702	
14606.0	USB	CUW20	Lajes Field, Azores, USAF MARS	1742	
14886.8	CW	WGY912	U.S. FEMA, slow speed 5LG	1753	
20198.3	LSB	....	NASA continuous re-broadcast of shuttle xmission during mission STS-61A	1848	

Many thanks to Bob (IL-267) and Hugh Stegman. Items marked 'C' were logged in Cottingham.

Please note that only the rarer or more unusual xmissions are listed. All of the above were logged Oct./early November.

FINALLY

Users of marine and aeronautical guides have long been acquiainted with Scoresbysund and Julianhaab in Greenland - comfortable Danish names from an earlier era.

Now the Greenlanders are independent and they have demanded change.

Scoresbysund becomes ITTOQQOORMITT
Julianhaab becomes QAQORTOQ

Try rolling your tongue around them !

Best wishes and thanks to correspondents.

Geoff

BUSINESS, ETC.

This column is for reporting frequency and radio system information for the following varied services: business, forest products, petroleum industry, special industrial, manufacturers, news media (behind-the-scenes radio, TV & newspaper), motion picture industry, security (private patrol, detective agencies, campus security & police, amusement park & stadium security, shopping center & mall security, plant/business/hotel security, etc.) General Mobile Radio Service (GMRS), mobile phone/RCC & paging, trucking firms, bus lines, taxi cabs, tow trucks, utility companies (private & municipal water, power, electric, gas, telephone, etc.), and all school & college related frequencies. Send information and questions pertaining to the radio services covered in this column to:

Send Business monitoring information East of the Mississippi to:
Brandt Niemuth, P.O. Box 541, Rosemont, IL 60016

Hello to another "Winter" chapter of "Business, Etc" - East events. Thuoght for the month: There'd be no food shortage in the world if more people were willing to eat zuccini.

From K Bathrick (NY-314) comes the following for the Poughkeepsie, NY area: (Ed note: due to the handwritting, I will try translate a best as I can, which may result in some errors.)

152.54	KED 363	Faconic Telephone Corp	Copake, NY

IBM Security:

152.48	KLC 763	Kingston Paging	
153.29	KEE 739	Kingston Research	
153.215	KKK 964	East Fishkill Paging	
153.17	KEP 980	KFS 480 KFS 489	Poughkeepsie
153.395	WYC 788	WYC 790 WYC 791	Poughkeepsie
153.08	KEC 542	WYC 785 WYC 786	Poughkeepsie
153.08	KIX 721	Kingston	

New York State Electric & Gas Corp:

48.00 48.04 48.08 48.3 48.32 48.36 48.4 48.54 47.74 47.78
467.75 467.8 467.85 467.9 451.1 451.15

New York City Bervoir Security

F-1 37.5	KEC 467	Ashokan	NYC
F-2 47.96	KEC 467	Ashokan	NYC
	KEE 807	Kenisco in Valhallo, NY	
	KEE 806	Grassy Sproin in Yonkers	
	KEE 808	Croton in Yorktown	
155.955		Amenia Highway	
453.325		Beacon Highway	
458.825		Beacon Highway	
151.07		Beekman Highway	
151.685		Bard College	Red Hook, NY
155.235		Beacon School	Beacon
464.325		Dutchess Community College	Poughkeepsie
464.775		Mariot College	Poughkeepsie
155.265		Pine Plains School	Pine Plains
45.96		Poughkeepsie City Schools	Poughkeepsie
151.655		Poughkeepsie City Schools	Poughkeepsie
154.725		S,U,N.Y.	New Paltz
151.655		Ulster County Community College	New Paltz
151.745		Vassar Collage	Poughkeepsie
155.295		Wappingers Falls School	Wappingers
31.00	KNGA985	Sharon Oil Co	Sharon, Ct
157.68		Sharon Masonry Co	Sharon, Ct
31.00	WXK 204	Tractor Repair	Sharon, Ct
35.9	KEZ 225	Amenia Sand & Gravel	Amenia, NY
464.525	KEZ 225	Amenia Sand & Gravel	Amenia, NY
35.1	WQI 899	G W Cook Farm Machinery	Amenia, NY
173.375		Poughkeepsie Newspapers	Poughkeepsie
464.525		South Hills Mall Security	Poughkeepsie
166.95		Vanderbilt,Mansion Security	Hyde Park
159.555		Hudson Armored Car	Poughkeepsie
464.375		Holiday Inn (Security)	Poughkeepsie
462.15		School Transit	Poughkeepsie
35.9		Glich & Co	Poughkeepsie
151.835		Eberhard Builder	Poughkeepsie
35.92		Terminix Pest Control	Poughkeepsie Kingston
35.1		Jim Glennon Locksmith	Kingston
35.18		Century Collision Center	Poughkeepsie
43.08		Dutchess Quarry & Supply	Pleasant Valley
35.92		Mid Hudson-Pest Control	Poughkeepie
461.375		U S Cablevision	Beacon
152.885		Durkan Oil Co	Paioling
152.99		Taylor Oil Co	Dover Plains
151.715, 158.385		Morgan Fuel	Poughkeepsie
43.4		Kolman Lumber	
151.985		New York Telephone	Poughkeepsie
158.34		New York Telephone	Poughkeepsie
451.4		New Yrok Telephone	Allentown
451.35		New York Telephone	Allentown
451.325		A T & T	Allentown
35.16		Continental Telephone	Red Hook
43.74		Adirondach Trailways Bus	Poughkeepsie
461.375		Dutchess County Cablevision	Dover Plains
471.8375		News Tribune	NYC
478.9625		Con Edison	NYC
472.1875		Motorola Corp	Poughkeepsie
34.79		Statue of Liberty (Security)	NYC
172.4		Central Park (Security)	NYC
155.235		Beebe School Transportation	Waterbuey, Ct

47.62		Connecticut Light & Power	Danbury, Ct
47.5		Fitzgerald Bus Co	New Haven, Ct
155.22		Breuster Schools	Breuster, NY
45.96		Carmel Schools	Carmel
155.295		Golden Arrow Bus Lines	Rhinebeck
47.46		Makapac Schools	Makapac
47.66		Sunrise Buses	Hudson
453.1	WYK 538	Ulster County Mini Bus	Kingston
154.115	KBI 635	Dutchess County Loop & Dart Buses	Poughkeepsie

Update to last month's column on American Taxi; Unit numbers on the air are the same as the cab numbers. ex: 415, 151, 119, 8, etc.

Send Business monitoring information West of the Mississippi to:
Cliff Polkinghorn, 14310 Acacia St., San Leandro, CA 94579

Welcome to BUSINESS WEST

FROM---SCANNERS UNLIMITED, 1199A LAUREL ST. SAN CARLOS. CA. 94070

35.18	KQZ873	GROUP W CABLE	LOS GATOS
44.60	KBZ752	ANZA PARKING CORP.	BURLINGAME
151.625	KA81162	CONSUMERS DISTRIBUTING	HAYWARD
151.655	KZL944	S.F. PARKING CORP (AIRPORT)	SO. S. F.
151.865	KQY524	BANK OF AMERICA	SAN FRANCISCO
154.570	KA97012	ALPHA BETA CO.	MILPITAS
158.430	KLN308	STANFORD RESEARCH INSTITUTE	MENLO PARK
452.975	KKQ423	EASTBAY NEWSPAPERS INF.	OAKLAND
462.700	KAB2862	GOLDEN GATE COMMUNICATIONS TEAM	MENLO PARK
464.475	WXR884	PARKING COMPANY OF AMERICA	SO. S.F.

FROM---YOUR EDITOR

460.950	KNCU261	AMERICAN DISTRICT TELEGRAPH CO. (A.D.T. ALARMS of S.F.)	

IDENTIFIERS: (all S.F. area and DOWNTOWN)
BASE
40, 50, 60, 70, 80 SERIES
USES STANDARD 10-CODE (except code 901= TELEPHONE_____)

FROM--- ANONYMOUS
467.8125 (SIMPLEX ONLY) - (NATIONWIDE) MONTGOMERY WARDS
1000 Handie Talkie Units (NATIONWIDE)
340 Stores (NATIONWIDE)

FROM---YOUR EDITOR and MOBILE RADIO RESOURCES, SAN JOSE
EAST BAY MUNICIPAL UTILITIES DISTRICT (E.B.M.U.D.)
1--Dispatched from admin bldg. Adeline st. Oakland
2--NO C.A.D. system available

FREQUENCIES:

47.960	
47.26	TRUNKED:
854.9625	861.2875 to 865.2875
855.9625	861.5625 to 865.5625
856.2375	

IDENTIFIERS:

EAST AREA	1600 SERIES
NORTH AREA	1400 SERIES
SOUTH AREA	1800 SERIES
CENTRAL	1000 SERIES
"OAKLAND"	ALL SERIES ARE POSSIBLE PLUS 3000 & 4000 SERIES

CANADA

Send Canadian frequency information, radio system details and other information relating to Canadian monitor radio listening and questions to:

Rob Berezowski, 310-4045 Rae St, Regina, Saskatchewan, Canada S4S 6Y8

Greetings all and welcome to the February Canada column. Things have gotten quite cold here recently. Right now it is more that 25 degrees Celsius colder than usual for this time of year, registering a -30C! The real problem is that the Saskatchewan provincial government has not yet called an election. You see, the winter would have been milder with all that hot air floating around. Oops, maybe we shouldn't get into politics here.

First of all, thanks to all that returned the reader survey form placed in the October issue. One point of concern was that recently, the majority of the frequencies and information in my column has been from Western Canada. Yes, that is true. Looking through the past year or so of newsletters showed the tilt was more serious than I thought. The problem is that I can only print what I receive. If I don't get any input from Eastern Canada, nothing goes into the newsletter. Not all is lost, however. Recently I have received several good contributions from "down east," including some excellent material from Toronto. In the future I will try to keep a better balance, but I can't do it alone guys.

Some good ideas were also sent in regarding special subjects to cover in upcoming issues. In the near future, I will be covering the following:

- National Disaster agencies and EMO frequencies
- Emergency Services at Airports across Canada
- RCMP (For all across Canada. This may take several columns)
- Ontario Provincial Police
- Quebec Provincial Police
- a list of (good?) stores in Canada where scanners can be bought and repaired.

I will be doing other subjects as well, but these will do for a start. I would appreciate <u>any and all</u> material from members on these subjects. The scheduling of these subjects will depend on how fast and how much material for these topics come in.

With regards to the list of scanner repair shops, please send in names and addresses of places where you've either dealt with directly, or that you know is reputable and will do a good job of repair. The list may be quite long, so I may have to distribute it by mail. I'll keep you informed.

Several members also indicated expertise with a particular local agency they could supply information on. I will answer each survey reply by mail (yes, it will be soon), and I'll discuss these profiles on an individual basis.

First off is a short note from David (CANA-037). He passes on that the Windsor Fire Dept is in the process of installing a CAD (Computer Aided Dispatch) system. The project is still in the initial stages, but at the moment all of the stations have a printer connected to the main dispatch computer. When an alarm comes in, essential information such as hydrant locations & cross streets comes through on the printer(s) in the responding station(s). Keep us up to date, Dave and thanks for writing in.

Next I have some information for the Toronto area. The first letter comes from Brian (CANA-077). He says that a new Computer Aided Dispatch System (CADS) has recently been put into service for the Mississauga Regional Ambulance Service. The coverage area for the new

service includes the areas North and West of Metro Toronto. Here are the frequencies in use:

MISSISSAUGA REGIONAL AMBULANCE CADS

Mobile Radio	Ch	1	Provincial	150.100
		2	District 1	143.370/149.335in
		3	Tactical	149.605/149.170in
		4	District 2	152.000/149.200in
		5	Cardiac	143.340/148.525in
		6	Spare	149.335
		7	"	"
		8	"	"
Mobile Repeater *	Ch	1	Repeater	Tx418.7625/Rx413.7625
		2	"	Tx418.8625/Rx413.8625
		3	(Not used)	
		4	(" ")	

* denotes Mobile Repeater installed in the ambulance for use with the Portables

District 1 includes Burlington, Oakville, Mississauga, Milton and Streetsville. District 2 includes Brampton, Georgetown, Bolton, Nobleton, Woodbridge, Richmond Hill and Thornhill.

The transition to the new CADS system hasn't exactly been smooth. The system has burped, coughed and sneezed several times. One serious problem is that only one repeater tower is operational on Channel 4, with only Richmond Hill and Thornhill being covered. The other areas in District 2 are out of range of the tower and must use Channel 3 149.605R (Tactical). The problem with this is that Metro Toronto Ambulance use this frequency for Paramedic (ALS) communications. (Note: more info on Toronto ALS is below -rb) Metro Toronto PMs have been pushed onto their other channel, which happens to be Mississauga CADS Channel 5. So this means that Mississauga cannot use their Channel 5, and Metro Toronto cannot use 149.605. Confused? You're not the only one. Imagine the headaches for the dispatchers.

But wait! It gets better. There have been pager failures, channel shutdown, and a computer Modat that is not working. The system is only 6 months old, but hopefully the wrinkles will get ironed out. In all fairness, a new, complex radio system is rarely put into service without a few glitches. Hopefully the problems will be solved before lives are lost. Thanks for the info, Brian

I also got a letter from Bruce (CANA-019). During a recent Ont Fire Buff Assoc meeting, he picked up some frequencies for the new Paramedic service in Toronto.

METRO TORONTO PARAMEDIC (ALS) SERVICE

ALS Dispatch	148.360
ALS Centre	143.340
ALS East	149.410
ALS Centre West	149.170
ALS Far West	149.335 (includes Peel, Mississauga)

Bruce also adds that the Niagara Regional Ambulance Dispatch is now on 155.130. Before I move on to the next letter, I'd like to mention that Bruce has just been elected Vice President of the Ontario Fire Buff Associates. Congratulations Bruce, and thanks for writing in.

The next letter with Toronto info comes from a member that wishes to be referred to as "good old reliable." He/she has sent in a very good list for the Toronto area:

Metro Toronto Ambulance	Ch	1	NW	152.375
		2	NE	151.820
		3	SW	150.530
		4	SE	148.165
		5	Tactical	149.410
		6	Provincial	150.100
		7	Supervisors	148.360
		8	Tactical	156.195
		9	Paramedic (ALS) Ch 2	149.605
		10	Paramedic (ALS) Ch 3	143.340
			Air Ambulance	413.6875/418.6875

(ed note: one can see in comparing the three frequency lists above that a few of the channels are listed in several places. Because ambulance communications in the Toronto area are going through some drastic transitions, these discrepancies are bound to occur. I'm sure that eventually some consistency will emerge.)

Metro Toronto Police Dept	00 Division (Various) "I" Channel	142.175
	1 TRAFFIC/MITRE	148.850
	11 & 12 Division "A" Channel	142.875
	13 Division "B" Channel	142.305
	14 Division "C" Channel	142.965
	2 TRAFFIC/MITRE	148.490
	21, 22 & 23 Division "D" Channel	142.905
	3 TRAFFIC/MITRE	156.240
	31 Division "E" Channel	142.035
	32 & 33 Division "F" Channel	142.065
	4 TRAFFIC/MITRE	155.550
	41 Division "G" Channel	142.125
	42 & 43 Division "H" Channel	142.155
	5 TRAFFIC/MITRE	155.400
	51 & 53 Division "J" Channel	142.335
	52 Division "K" Channel	142.995
	54 & 55 Division "L" Channel	142.695
	Chief, ETF "M" Channel	142.725

(ed note: see below for more info on Metro Toronto PD)

Metro Toronto Fire Dept	Ch 1 Operations	411.9875
	2 TAC 2	411.7875
	3 Repeater for TAC 2	412.6625
	4 TAC 4	411.8625
	5 Repeater for TAC 4	412.7125
	6 Ont Fire Marshall & other depts	412.8125
	7 Supervisors	412.3125
	9 Dispatch 1	414.7625
	10 Dispatch 2	415.3125
METRO-NET (Toronto area Emergency freq, unconfirmed)		151.285
East York Fire Dept	XJF 45 Ch A	154.400
Etobicoke Fire Dept	XJJ 55	154.325
Mississauga Fire Dept	Ch 1	154.950
	Ch 2	154.235
	Dispatch	414.5875
North York Fire Dept	Ops 1	153.830
	Ops 2	153.395
	Ops 3 (Fire Marshall & Inter-dept ch)	154.070
Scarborough Fire Dept	Ch A	154.430
	B	154.265
	C	153.950
Toronto Airport Fire Dept		461.775
Toronto Transit Commission (TTC)		412.0375
" " "		412.0625
" " "		412.1125
" " "		412.5875
" " "		412.6125
Toronto News Media	CBC News	172.875
	CBL News	152.870
	CFRB News	162.330
	CFTO-TV Ch 9	152.090
	CFTR Radio	170.135
	CHUM News (Simplex)	153.350
	CITY-TV News F-1	453.7875
	CKEY	153.050
	CKO News	164.460
	Global TV News	451.675
	" " "	461.7625
	Toronto Globe & Mail	452.2125
	Toronto Star News (F-2)	461.5375
	Toronto Sun News	461.0125
Toronto Hydro F1		154.845
F2		153.710
Consumers Gas		151.355

Our contributor also has a couple of questions for our members. First, does anyone know what the frequency is for CITY-TV F-2? F-1 is given above, but frequent mentions of F-2 have been heard. Any ideas? CITY-TV reporters also use a code when they are using the radio. Do any of the members out there have any idea what the codes mean? Our mystery member would really appreciate some answers to these questions. Please send any info to me at the address above. A big thank you to "good old reliable" for the info.

Guy (CANA-031) was in the Toronto area a while ago. He reports that the mobile input channels for the Metro Toronto Police Force were changed. The province-wide standard is for the mobile input to be 4.020 MHz below the base output frequency. For example, the frequency 142.035 should be paired with 138.015, and this is the case in most of Ontario.

While in Toronto, Guy found that the mobile input frequencies were re-assigned, giving offsets other than 4.020 MHz. The mobile frequencies apparently have been shuffled according to the table below, supplied by Guy:

METRO TORONTO POLICE FORCE

Base	Old Mobile	New Mobile	New Offset
142.035	138.015	138.945	3.090
142.065	138.045	138.975	3.090
142.125	138.105	138.015	4.110
142.155	138.135	138.045	4.110
142.305	138.285	138.105	4.200
142.335	138.315	138.135	4.050
142.695	138.675	138.285	4.410
142.725	138.705	138.315	4.410
142.875	138.855	138.675	4.200
142.905	138.885	138.705	4.200
142.965	138.945	138.855	4.110
142.995	138.975	138.885	4.110

No mobile frequencies have been added or deleted, only shuffled. I can't think of any reason why the Toronto PD would do this, although it may have been because of interference with neighboring police forces on the same or adjacent frequencies. It could also be related to the new computer system recently installed by the Metro Police (see below). If any of the members have any more information on this, I would certainly like to hear about it. Thanks for the info, Guy.

While we're talking about Toronto, I have a couple of articles sent in by Bruce (CANA-019). They both deal with the new computer system being implemented by the Metro Toronto Police. This system will cost about $2.3 million, and includes the installation of Mobile Data Terminals in all 220 patrol cars by 1987. One article appeared in the Toronto Star of May 17, 1985 on page A14. This article describes the MDTs, and discusses the many benefits of almost instant to CPIC/NCIC. The computer will store information on trouble addresses, and addresses where hazardous materials are stored. When calls are received for these addresses, this information is transmitted to the officers.

The video screen is 11 x 8 cm (about 4 x 3 inches for those of you back in the stone age using the Imperial system), but can display 300 characters in 10 lines. The terminals also feature status keys, pushbuttons that allow the officer to quickly notify the dispatch computer when he/she is "enroute", "on scene", and so on.

Another article I have appeared in the Toronto Globe and Mail on Sept 11/85 on page 16. This article has a somewhat negative view of the new dispatch computer system. The new system seems to have reduced dispatcher efficiency during emergencies such as high speed chases. The comments were made during an inquiry into the death of Diane Donnelly, 23, who was killed May 19/84 when she was hit by a drunk driver being pursued by police.

The old system divided Metro Toronto into North and South, and the two dispatchers could select frequencies of the different divisions by flicking a switch. The new system has 12 dispatchers, with each dispatcher responsible only for his/her division. Dispatchers are unable to link to other division frequencies without the consent of the desk sergeant.

This difficulty made itself apparent during the high speed chase

of May 19/84. The vehicle was chased through 33 Division, but the officer involved and the dispatcher were from 41 Division. The officer and the dispatcher were uncertain with street addresses, and this caused confusion and numerous pauses in radio communication. The desk sergeant was forced to shout instructions to the dispatcher seated several desks away. The desk sergeant also said that the radio system did not hinder his ability to perform his duty.

Another difficulty pointed out in the article is the fact that voice and data share the same radio channel, with voice having priority. This places a limit on the amount of information that can be transmitted. One must remember that any new, large and complex system is bound to have a few problems during break in. I'm sure that these problems will eventually be ironed out. Thanks for the information, Bruce.

For those members who asked for a profile of Toronto, there you go. I hope you enjoyed it. Information on Toronto has been lacking for the last while. Until next month, take care everyone.

COMMUNICATIONS PROFILE

Joe M. Lewis, 750 Scotland St., Dunedin, FL 33528

This column is for special projects that explain various systems in detail. Frequencies and radio codes of not only municipal agencies and certain federal government agencies may be listed, but also large businesses and corporations. The contribution must be lengthy enough that publishing it in one of the regular columns would not be possible. If you are inclined to submit a report as the one below appears, please follow No.7 in the inside front cover of the Newsletter.

WELCOME TO THE FEB. 1986 COLUMN. I AM WRITING THIS IN EARLY DEC. I HOPE EVERYBODY HAD HAPPY HOLIDAYS.

THERE HAS BEEN SOME ERRORS IN PUBLICATIONS OF PRINCE GEORGES COUNTY, MD. RADIO FREQUENCIES. THE FOLLOWING INFORMATION IS DATED SEPT. 1985 AND IS FROM THE COMMICATIONS SUPERVISOR FOR PRINCE GEORGES COUNTY, CONFIRMED AND VERIFIED.

SOME PUBLICATIONS LIST " SHREWSBURY POLICE, HYATTSVILLE, 154.83" THERE IS NO SUCH PLACE AS SHREWSBURY IN PRINCE GEORGES COUNTY.

POLICE FREQUENCIES:
CHANNEL 1 494.687 HYATTSVILLE, SECTORS A/B
CHANNEL 2 494.562 CLINTON SECTOR F
CHANNEL 3 494.937 CAR/CAR, COUNTYWIDE
CHANNEL 4 495.137 SEAT PLEASENT, SECTORS G/H
CHANNEL 5 494.537 BOWIE, UPPER MARLBORO,
SECTORS, D/E.
CHANNEL 6 495.087 OXON HILL SECTORS J/K
CHANNEL 7 494.887 LAUREL SECTOR C
CHANNEL 8 494.737 SOD
155.79, IN 154.95 SOD
155.58 IN 154.83 SHERIFF
155.94 IN 154.085 COUNTY GOVERNMENT
159.18 IN 151.055 PUBLIC WORKS & HIGHWAYS
158.94 COUNTY CIVIL DEFENSE

45.52 License & permits, Dog control is on 155.94

THE FOLLOWING FREQUENCIES, ACCORDING TO THE
COMMUNICATIONS OFFICE ARE NOT IN USE:
47.62, 462.700,158.73

153.785 IS THE BOARD OF EDUCATION

OTHER FREQUENCIES IN P.G. COUNTY:
LAUREL-BELTSVILLE HOSPITAL PAGER 163.250
BLADENSBURG POLICE 453.900
CITY OF BOWIE PUBLIC WORKS 156.000
CITY OF COLLEGE PARK PUBLIC WORKS 46.58
THEY DO NOT HAVE THEIR OWN POLICE DEPT.
HYATTSVILLE POLICE 155.13, PUBLIC WORKS 156.24
RIVERDALE POLICE 155.565
GREENBELT POLICE 453.800

LAUREL POLICE 453.150
LAUREL RESCUE 33.02

ALL CITY POLICE AND COUNTY USE THE FOLLOWING
CODES:
10-1 RECEIVING POORLY
10-2 RECEIVING GOOD
10-3 STOP TRANSMITTING, UNLESS EMERGENCY
10-4 ACKNOWLEDGMENT
10-5 RELAY TO
10-6 BUSY
10-7 OUT OF SERVICE
10-8 IN SERVICE
10-9 REPEAT
10-10 OUT OF SERVICE,SUBJECT TO CALL
10-11 TRANSMITTING TO FAST
10-13 ADVISE WEATHER CONDITIONS
10-14 CONVOY OR ESCORT
10-14A ARMY
10-14B BANK OR MONEY
10-14E EXPLOSIVES
10-14F FUNERAL
10-14L ALCOHOL BEVERAGE
10-14M MARINES
10-14N NAVY
10-14W WIDE LOAD
10-15 HAVE PRISONER IN CUSTUDY
10-20 WHAT IS YOUR LOCATION
10-21 DO YOU HAVE ANY CALLS FOR ME
10-22 CANCEL LAST MESSAGE
10-25 DO YOU HAVE CONTACT WITH
10-27 ANY REPLY TO OUR MESSAGE
10-28 CHECK REGISTRATION
10-29 CHECK FOR WANTED OR STOLEN
10-30 DOES NOT CONFIRM TO REGULATIONS
10-32 LAST ASSIGNMENT COMPLETE, 10-8
10-33 IMPORTANT BUSINESS FOR YOU AT YOUR STATION
10-34 CLEAR FOR LOCAL BROADCAST
10-35 CALL LANDLINE
10-36 CORRECT TIME
10-37 DISPATCHER ON DUTY
10-40 ADVISE LANDLINE NUMBER
10-41 NO CALLS FOR YOU AT THIS TIME
10-42 CHECK FOR DRIVERS LICENSE
10-62 UNABLE TO COPY
10-64 NETWORK FREE TO COPY LOOKOUT
10-70 STATEWIDE BROADCAST
10-85 .....LEFT THIS STATION AT....
10-86 CALL HOME
10-89 ......IS CALLING YOUR STATION
10-94 TEST, NO VOICE, TRANSMITTER ONLY
10-97 HOW DO YOU COPY

SIGNAL CODES:
1 CONTACT YOUR STATION, LANDLINE
2 CONTACT YOUR STATION, URGENT
3 REPORT TO YOUR STATION
3I REPORT TO YOUR STATION, URGENT
4 MEET COMPLAINANT AND GET FULL REPORT
5 INVESTIGATE VEHICLE
6 INVESTIGATE OCCUPANTS OF VEHICLE
6I INVESTIGATE DRUNK DRIVER
7 INVESTIGATE SUSPICIOUS PERSONS
7A INVEST. SUSPICIOUS PERSONS, USE CAUTION
8 REGISTRATION INFORMATION
9 ACCIDENT
9I ACCIDENT, WITH INJURIES
9F ACCIDENT WITH DEATH
11 HIT AND RUN
11I HIT AND RUN WITH INJURY
11F HIT AND RUN WITH DEATH
12 JAIL BREAK AT...

13 OFFICER IN TROUBLE, EMERGENCY
13I TROUBLE AT STATION EMERGANCY
14 INVESTIGATE FELONY
14F INVESTIGATE FELONY WARRENTS ON FILE
14X INVESTIGATE FELONY WILL EXTRADITE
15 UNLAWFUL ASSEMBLY
15F FIGHT
15R RIOT
20 AMBULANCE CALL,ROUTINE
20E AMBULANCE CALL ESCORT
20I AMBULANCE CALL EMERGENCY
22 UNKNOWN TROUBLE IN BUILDING, USE CATION
25 ANIMAL COMPLAINT
25B ANIMAL BITE
25F ANIMAL DEAD
26 BAD WEATHER, NO ACCIDENT REPORTS
30 SHERIFF USE ONLY: SUMMONS IN LIEU OF ARREST
40 SHERIFF USE ONLY: TACK UPS
44 BOMB THREAT
45 CAVE IN
46 MOTORCYCLE COMPLAINT
50 CROSS BURNING
55 SHERIFF USE ONLY: EVICTION
60 ASSAULT REPORT
61 BURGLARY REPORT
62 HOUSE BREAKING
63 LARCENY REPORT
64 MURDER
65 SEX
66 SUICIDE OR ATTEMPT
67 DROWING
68 DISORDERLY SUBJECT
70 DRUNK
71 FAMILY TROUBLE
72 JUVENILE REPORT
73 DISORDERLY JUVENILES
74 UNLAWFUL ASSEMBLY OF JUVENILES
75 REQUEST CAMERA
76 ASSIST FIRE DEPT.
76C ASSIST FIRE DEPT. CROWD CONTROL
76T ASSIST FRIE DEPT. TRAFFIC
78 BURGLAR ALARM
79 OPEN BUILDING
81 DEATH REPORT
82 MEET OFFICER AT
83 NOTIFICATION AT....
84 HOLD UP
86 BREAKING IN AT
87 SCHOOL OR CHURCH CROSSING
88 STOP FOR MAIL AT
89 PICK UP RECOVERED PROPERTY AT...
90 MINOR REPAIRS AT...
91 OUT FOR GAS
98 EATING OUT OF AREA
99 OUT OF SERVICE FOR MEAL
100 CAR CONTROL TRANSMITTER
500 LOOK OUT TO FOLLOW

UNIT NUMBERS:
CAR 1 CHIEF
CAR 2 ASSIST. CHIEF OPERATIONS
CAR 3 ASSIST CHIEF, ADMIN.
CAR 4 COMMADER,PATROL
CAR 5 COMMANDER, TECH SERVICES
CAR 6 COMMANDER SOD
CAR 7 COMMANDER, ADMIN SERVICES
CAR 8 EXECUTIVE ASSIST.
CAR 9 COMMANDER TRAINING
CAR 10 COMMANDER PUBLIC RELATIONS
CAR 11 COMMANDER HYATTSVILLE DISTRICT
CAR 12 COMMANDER BOWIE/MARLBORO DISTRICT
CAR 13 COMMANDER SEAT PLEASENT DISTRICT

CAR 14 COMMANDER OXON HILL DISTRICT
CAR 15 COMMANDER RECORDS AND I.D.
CAR 16 COMMANDER COMMUNICATIONS
CAR 17 DIVISION COMMANDER SOD
CAR 18 SPECIAL ENFORCEMENT DIVISION COMMANDER
CAR 19 MAJOR CRIMES DIVISION COMMANDER
CAR 20 COMMANDER POPERTY DIVISION
CAR 21 COMMANDER INSPECTIONAL SERVICES
CAR 22 ASSIST. FOR OPERATIONS
CAR 23 ASSIST FOR ADMIN SERVICES
CAR 24 OIC RESEARCH DEVELOPMENT
CAR 25 OIC PERSONNEL
CAR 26 OIC CENTRAL SERVICES
CAR 40 OPERATIONS OFFICER
CAR 41 HYATTSVILLE DISTRICT SUPERVISOR
CAR 42 BOWIE/MARLBORO SUPERVISOR
CAR 43 SEAT PLEASANT SUPERVISOR
CAR 44 OXON HILL SUPERVISOR
CAR 50 COUNTY EXECUTIVE
CAR 51 COUNTY COUNCILMAN
CAR 52 COUNTY EXECUTIVE AIDE
CAR 53 COUNTY CHIEF ADMIN. OFFICER
CAR 54 COUNTY STATE'S ATTORNEY
CAR 60 CATHOLIC CHAPLAIN
CAR 61 PROTESTANT CHAPLAIN
CAR 63 MEDICAL EXAMINER
CAR 64 RADIO REPAIR
1200'S POLICE CADETS

INSPECTIONAL SERVICES SECTION:
INTERNAL AFFIARS S-100 TO S105
STAFF INSPECTION S-110 TO S-114
RESEARCH AND DEVELOPMENT S-200 TO S-205
COMMUNITY SERVICES S-910 TO S-904
SAFETY EDUCATION S-911 TO S-915

CROSSING GUARD SUPERVISOR NORTH S-921
CROSSING GUARD SUPERVISOR SOUTH S-922

PUBLIC INFORMATION S-989 S-990

EOC FORESTVILLE 100
EOC FIELD HQ 200
EOC UNIV OF MD 300
MOBILE COMMAND POST 400

BEAT CARS ARE SECTOR LETTER, # 1 TO 9
SARGENTS ARE SECTOR LETTER AND 10
TACTICAL UNITS ARE SECTOR LETTER AND 30 TO 49

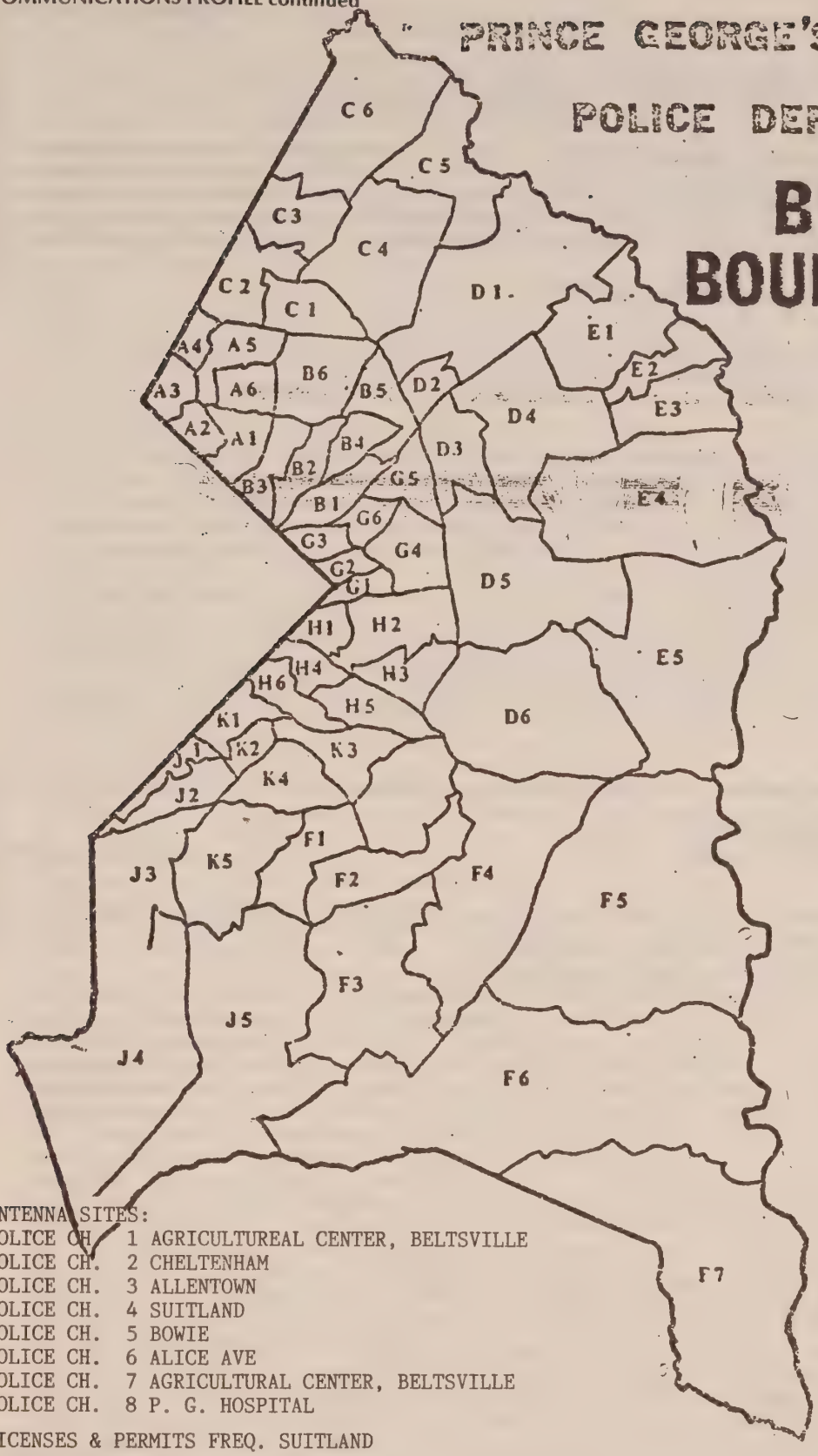
SPECIAL OPERATIONS TACTICAL SQUAD T-10 TO 51
AUTO THEFT T-70 TO 73
CANINE (K-9) T-100 TO 117
TRAFFIC ENFORCEMENT, TRAFFIC 1 TO 12
ROBBERY R-1 TO 30
HOMICIDE M-1 TO 30
CRIMES AGAINEST PROPERTY P-1 TO 59
EVIDENCE COLLECTION O-1 TO 9
JUVENILE Y-1 TO 69
MISSING PERSONS Y-80 TO 85
VICE V-1 TO 4

MUNICIPALITIES USING COUNTY POLICE CH.1
COLMOR MANOR 201-205 *
BLADENSBURG 210 - 215
CHEVERLY 220-225*
UNIVERSITY PARK 226-229*
LANDOVER HILLS 230-235*
EDMONSTON 240-245*
COUNTY POLICE CH.4
MORNINGSIDE 301-309*
*-MAIN FREQUNCY IS COUNTY FREQ.

PRINCE GEORGE'S COUNTY

POLICE DEPARTMENT

BEAT BOUNDARIES



ANTENNA SITES:
POLICE CH. 1 AGRICULTUREAL CENTER, BELTSVILLE
POLICE CH. 2 CHELTENHAM
POLICE CH. 3 ALLENTOWN
POLICE CH. 4 SUITLAND
POLICE CH. 5 BOWIE
POLICE CH. 6 ALICE AVE
POLICE CH. 7 AGRICULTURAL CENTER, BELTSVILLE
POLICE CH. 8 P. G. HOSPITAL

LICENSES & PERMITS FREQ. SUITLAND
SHERIFF FREQ. BRADBURY HGTS.
SHARED COUNTY FREQ. SUITLAND
PUBLIC WORKS FREQ. ALLENTOWN
CIVIL DEFENSE FREQ. SEAT PLEASANT
SOD POLICE FREQ. SEAT PLEASANT
BOARD OF EDUCATION UPPER MARLBORO

ONE OTHER FREQ WHICH MIGHT BE INTERESTING IS PRINCE GEORGES COUNTY REACT:
462.625 KAD-5538

THIS CONCLUDES PRINCE GEORGES COUNTY. NEXT MONTH WILL BE WASHINGTON, D.C.
FROM THE CITY COMMUNICATION RADIO REPAIR SHOP AND MAYORS COMMAND CENTER

contact info wanted

This column has two purposes: to help members *contact* each other, and to help members obtain *information* directly from one another on various subjects related to 2-way communications monitoring. If you desire to converse, meet, or correspond with other members by telephone, letter, or cassette tape in a certain geographic area or with members who have similar listening interest, *this* is the perfect place for you to make known your interests. Remember — those who respond will do directly, so be sure to provide your phone number, the best time to be called, or your address. Write to:

Scott Mattson, 2820 Bridge Ave., Point Pleasant, NJ 08742

INFO WANTED: For the Boston, MA area; any frequencies for police, fire, etc., in the 806-912 Mhz band.
BOB STUDLEY (MA-146) 200 Bedford Rd., Apt. 25E, Woburn, MA 01801 (11/14)

CONTACT WANTED: New member interested in contacting any member in the Birmingham/Jefferson County Alabama area. I desire info on frequencies used by businesses, utilities, road and highway departments, news media, etc. I would also like info on and conformation of the channel numbers of the frequencies used by the Birmingham Police Department.
WAYNE PULLEN (AL-028) 1321 Edgewood Dr., Demopolis, AL 36732 (10/30)

INFO WANTED: I would like to have some tape recordings of 800 Mhz scanner traffic, I will supply the cassette tape. I would like to hear the sound of the new 800 Mhz converter made by Hamtronics.
MARK A. THOMAS, JR. (VA-051) 12163 Wokesville Rd., Bristow, VA 22013 (11/4)

FCC TOPICS

George DuBois, Editor

FCC news and information of interest relating to two-way communications. Send comments and questions to:

George DuBois, 10048 NE Campaign, Portland, OR 97220

The Cellular Telecommunications Service

I received a number of letters indicating interest in learning more about the cellular service. Although it is a Public service, it would have been too lengthy to include in last April's column when I covered the other Public land mobile services. Since some confusion appears to exist, maybe I should explain right off the difference between cellular systems and trunked 800 mHz systems. Trunked systems are Private, two-way radio systems in the 858-866 mHz band. (see Feb., 85 column.) They use up to 20 channels in an arrangement where the users are switched automatically to a vacant channel. Most trunked systems are licensed as Specialized Mobile Radio Systems (SMR's). Basically SMR's are businesses that construct 800 mHz systems and sell use of them to eligible licensees. They may also provide interconnection, or autopatch. The users must be eligible in one of the Industrial or Land Transportation services and must obtain their own license. Not so with the Cellular mobile telephone service. Being a Public service, use is made available to the public at large. The only qualification is having the money to pay for it. The Cellular service is so named because of its design. The mobile telephone services in the VHF and UHF bands operate using a very simple concept. One transmitter (sometimes more than one) transmits on one frequency and covers the greatest area possible, to ensure quality, reliable service. (There are limits to the range the transmitter may cover, since the coverage area of one common carrier can't extend into the area of another, but this is beside the point.) Obviously when the one channel is in use no one else can use it. They have to use one of the other channels that carrier may have available. If they're all busy, the guy is out of luck. Also, the mobile may go behind a hill or between buildings resulting in a weak, noisy signal.

In the Cellular service, the service area is divided into 'cells' each served by its own transmitter. The concept was first developed by AT&T back in the late 40's. The first step toward actual implementation began in the late sixties, the spectrum indentified with the realloca-

tion of the 806 - 890 mHz band (TV channels 70-83) in 1970. It wasn't until 1979 that the Commission finally released the Notice of Proposed Rulemaking in the Cellular proceeding. The Final Order was adopted on April 9, 1981. In a Cellular system, the transmitters are arranged to provide quality coverage to a limited area (sometimes configured within geographic limits - hills, etc.) and also to provide a sufficient number of channels per cell. The maximum power allowed is 100 watts Effective Radiated Power. The reliable service area of such a transmitter is considered to be 15 miles. With increased height less power is permitted. In an urban area there is no advantage to increased height. In small towns, there might be. A single site, with a half-dozen channels may be more than adequate.But in larger cities there is a need to cover a large geographic area, provide a high quality service in all areas, and to provide a sufficient number of channels in each area to handle the anticipated volume of traffic. Therefore a city is divided into many of these small 'cells'.

How it works

There are 666 channel pairs available in the Cellular service. 333 are available to wireline (telephone company) carriers and 333 to non-wireline, radio common carriers. Thus each city may have two separate, competing systems. All of the top 90 cities have been allocated and most of the wireline systems are on the air,plus a majority of the non-wireline systems. The voice channels in the non-wireline systems begin at 870.030 mHz (ch. 1) and proceed in 30 kHz (.030 mHz) steps through 879.360 mHz (312 channels). The voice channels in the wireline systems begin at 880.650 through 889.980 mHz. Each system has another 21 channels for Forward Control Channels (879.390 through 879.990 for RCC's, 880.020 through 880.630 for WCC's - the upper and lower ends of each band.) Each cell site has one control channel, on which 10 kbit per second data is transmitted to the mobile units. (To you and me and the average scanner listener, this channel is just a continuous buzzing.) Obviously all 312 voice channels cant be used in one cell, since channels are needed in adjacent cells. In theory 45 channels are available per cell in a seven-cell pattern, assuming flat terrain. Hills, or irregular terrain are advantagous, physically limiting the size of the cell and permitting reuse of the same frequencies closer together than could otherwise be accomplished. In very high density urban areas where more channels are needed, 'cell splitting' is done, where additional sites are added, using lower power and serving a smaller area. Again, the frequencies from this site can then be used again at another, distant site. Another variation is the sectored cell, where directional antennas are used. The licensee of the cellular system is given exclusive use of all 333 channel pairs in his system. There are no rules governing the design or configuration of the system, other than that it must conform to the compatibility standards for all systems. They are further required to provide service to 'roamers', transient subscribers from other systems. Otherwise, the licensee is free to use any of his 333 channels in any manner he wishes. He can add channels to a site, or add new sites as he sees fit. The only restriction is that frequencies at sites that border another system must be coordinated with that system. A licensee must serve at least 75% of his geographic service area.

Cellular mobile units transmit 45 mHz below the base station frequencies, 825.03 through 834.99 mHz for RCC and 835.02 through 844.98 for wireline systems. Maximum output power permitted is 6.3 watts ERP. Mobile units are divided into three classes, I, II, III, high, medium and low power output stations, respectively (low power stations being the hand-held portable type). They must be capable of operating on all 666 channels in both systems. When a mobile initiates a call for service, a complex sequence of events takes place, which I can only begin to detail here. The mobile unit will scan the Foward Control Channels and select the strongest one. It then receives the Update Overhead Information. The mobile is already programmed to select a priority system, either the wireline or non-wireline system. It then transmits a request for service (the Retrieve Access Attempt), the number dialed, receives the intercept, is directed to a forward voice channel, transmits a 32 bit mobile identification number, a 32 bit serial number,the class of station (8 bits),and so on. All this occurs within a fraction of a second or so, assuming the first voice channel randomly selected is idle. The base station transmits data constantly to the mobile, including an 8 bit message that raises or lowers the mobiles output power in 4db steps as it moves closer or further from the transmitter. It

also monitors its strength, compares it with the received strength at other sites, and hands off the mobile to the next site when required.

None of this matters to you and me. All you'll hear is the channel become active when a call goes through. Cellular systems do use a Supervisory Audio Tone (SAT). This is the annoying tone you hear on many RCC systems, particularly on UHF.Fortunately, the three SAT tones used in cellular systems are all around 6 kHz, a barely audible high-pitched tone. The SAT is transmitted by the base, received by the mobile and transmitted back to the base. The receiver audio is muted if the proper tone is not received by the mobile. Cellular systems also compandor the voice audio at a 2 to 1 ratio, but you will not even notice this. They also use a 6 db per octave pre-emphasis between 300 and 3000 Hz. All of this greatly enhances the audio quality for the users but isn't readily apparant to us, listening on a scanner.

Monitoring Equipment

As far as equipment for 800 mHz goes, all I can advise is to be very careful in your selection. Few models of off-the-shelf equipment are suitable for monitoring the cellular bands, or in some cases, anything else! The Yeasu FRG-9600 will tune the band manually but will not do so in 30 kHz steps. You have to use the 10 kHz increment. It also has 100 memory channels. It performs well, but has a number of drawbacks that limits its usefulness for other monitoring, including limited coverage, no SSB above 460 mHz and the fact that you need the instruction book in front of you all the time. I never could get one to scan.And it never would tune the 851 mHz land mobile band in 25 kHz steps on the proper frequencies for some reason. This is all typical of imported scanners, since they really don't appear to have a grasp of what we want in this country.

A slightly more promising receiver appears to be the Icom R7000. Icom is far superior gear, but is consequently more expensive. It, too can only tune in 10 kHz (or 5 or 1 or .1 kHz) steps in the cellular bands, since there is no 30 kHz increment. It also has 99 channels. Coverage is to 1.3 gHz, with less sensitivity to 2 gHz. (This will get you the 1.5 gHz Maritime-Satellite band.It looks much like their short wave model R71 and probably will have the same oriental quirks, like searching backwards between two frequencies. The third option is the MX7000 from Regency (We don't make 'em, we just sell 'em) Electronics. It will search in 10 kHz increments, but does it so slowly as to make it worthless. (Remember, each cellular band is 10 mHz wide.) It also only has 20 channels. Pass on this one.

The other scanners on the market are limited by the fact that they will not search or enter frequencies in other that 12.5 or 25 kHz increments.This means that you will be as much as 5 kHz off the actual channel. With a strong signal this isn't that much of a problem. The Bearcat 800XLT, for example, only programs in 12.5 kHz steps, but it has 40 channels in two banks. This would be very handy for switching between channels at two different cell sites. Two other scanners, jap imports from Regency, are losers, though. Besides having only 20 channels, the MX4000 and HX2000 will only search 800 mHz in 25kHz steps. They have a switch to offset the receive frequency 12.5 kHz, but this means you have to search through the band twice and hope the actual channel is close enough to find it on either pass. In the scan mode, all the 800 mHz channels are offset, meaning that some channels will be right on frequency and some as much as 10 or 15 kHz off. Pass on these and save yourself some aggravation. I've had a Hamtronics CVR806 converter which I've used for years now. It will obviously work with any scanner, and with a Bearcat 250 for example, give you 50 channels. (Enter the upper and lower limits of the cellular bands in the store memory and you can then recall them instantly with the recall button and start searching.) The only problems are the extra cables and power connections and the fact that you have to add the difference frequency to the display to determine the actual frequency. There are a number of other block converters that have come on the market in the last year or so. One converts the Cellular bands (only) to VHF, which will give you the ability to enter the exact 30 kHz channels. I have no idea how well any of these newer converters work. If you buy one that only gets the Cellular bands, it's not going to be a very good investment when you get tired of it, or want to listen to something else.

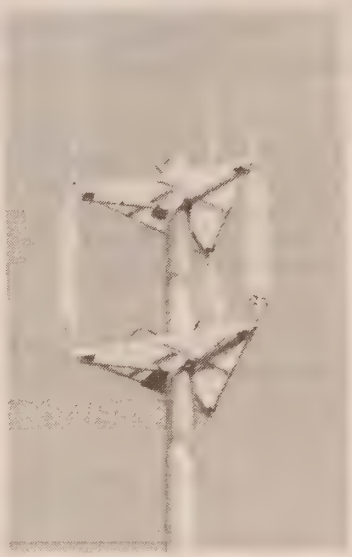
How to listen

Finding the cellular channels in your area may be accomplished in a number of ways. One is to sit back and hope someone comes out with

some frequency book with all of them in it. Another way is to find them yourself. This of course involves some effort on your part, but can be a real challenge and a lot of fun besides.

One approach is to randomly search through the two bands and list them as you find them. Remember there will most likely be two systems in most cities, the RCC system from 870 to 880 mHz and the wireline, telco system from 880 - 890 mHz. Just do one at a time. Get one system down pat, then do the other. One problem with this random approach is that you will surely be able to hear one cell site, but possibly as many as two or three, depending on your location.

A more methodical approach is necessary. This involves the use of a vehicle, a suitable receiver, a pen and some paper,all common items. Whether you want to track down the whole system or just you local area is up to you.A phone call to your local cellular provider will usually get you the number of cell sites in the system (so you know when to stop looking!). Just drive around while searching through the 21 control channels until you get a good strong signal. You will probably have to step through manually with the squelch open, since the control signal has a wide deviation and your scanner will otherwise skip right over it. Park where you only receive one control channel, so you know you aren't picking up channels from adjacent cells. Don't use an exter-nal antenna. You probably won't need an antenna at all. It's not necessary to find the actual transmitter site, other than to confirm your own suspicions about its location. The tower will most likely be what's commonly call an AMPS platform, a three sided array with directional antennas on each corner. You will rarely see such an antenna in a downtown area, though, due to obvious physical constraints. Antennas will usually be mounted on a tall building.



Search the band and note down the frequencies on your list. (Don't stop to listen to conversations because while that channel is in use you're going to miss conversations on other chan-nels!) Make one up yourself, on a typewriter if you have to. A computer with a spread sheet pro-gram is easier. (If you want lists of the * (ch an antenna in a downtown area, though, due) extra mint stamp inside. I'll send you lists of both systems and you can then make photocopies of them, one for each cell site.) After you've found six or seven channels by searching, circle them on your list and you will then see an obvious pattern to the channels. At this point, you might even stop searching and just enter the remaining probable channels and confirm them as they become active. Common spacing is 630 kHz (21 channels) between channels. There may be 15 channels spaced over the entire 10 mHz band, or there may be two channels, 3 or 4 channels apart with the rest spaced 21 channels apart from these two, possibly using only half the 10 mHz band (closest to the control channels). At high density sights with 20 or 30 channels there may be 2 or 3 sets of channels, all evenly spaced through the band.This little bit of information is going to help you a lot. Remember that sites in suburban, fringe areas may only have 8 or 9 channels. One problem you might encounter is a sectored site. The simplest solution here is to locate the actual site and then move a ways in each direction from it, determining the control channel and voice channel for each sector. I should also mention that the voice channels themselves can be received at a greater distance than the control channel, with its wide deviation.

Whether you track down the whole system or just your local area, you are now able to sit in your living room and listen to cellular calls and hopefully know what you are doing. One thing I've found is that probably three-quarters of the calls will be completed without hand-off. Lengthier calls, of course, will be handed off to the next cell (unless the guy is parked!), but you now know the channels for that cell and need only step through them to find the same conversation. Nothing to it when you know what you are doing, is there? As I've mentioned before in this column, remember the privacy provisions of the Communications Act. In theory you are not even suspposed to re-

* - Obvious error. Line should read: send me a SASE and I'll send you the lists, printed in a computer as neat as this one!

veal the existance, much less the content of any radio communication you hear. So keep what you hear to yourself and enjoy.

For those of you who have been patiently (?) waiting for the FCC to issue a new set of license microfiche, it is now available from NTIS. Dated July, 1985, the Master Frequency List, Frequency Sequence is now up to 863 cards and costs $431.50. The stock number is PB84-919301/HBN. The State Index to Master Frequency File is $29.50, stock number PB84-902401/HBN. The Licensee Name Index is $28.50,stock number PB84-902301/HBN. And the Callsign Index is $29.50, stock number PB84-902501/HBN. NTIS now charges a $3 handling charge per order. Their address is National Technical Information Service, 5285 Port Royal Rd. Springfield, Va. 22161.

FEDERAL GOV'T
and
MILITARY

Send all Federal Government and Military frequencies (including those of military aircraft), radio system details, and related questions to:

Dennis Biagioli, 607 W. Pleasant Ave. Villa Park, IL 60181

Sensitive frequencies will not be published. Coast Guard material must go to the VHF Marine editor.

And a happy February to all. Here in the Land of Lincoln we celebrate Lincoln's Birthday as a legal holiday on February 12. It gives us a chance to get all the snow off the drive and clean out the frequency notes we've accumulated while watching the snow recover the newly shoveled driveway. And yet all military and federal offices operate so we get some rare weekday listening. So, let's get on with it!

If you're near Rantoul, Illinois, you can use these additions to last months information regarding-

CHANUTE AIR FORCE BASE, IL

149.1750	Commander's Net (Base/R-out)
150.2250	Commander's Net (Mobiles)
163.4875	Commo. Sqdrn. Operations
165.0375	Base Taxo Net
165.1375	Training Equipment Maintenace

GREG (CA-OR-206) sends along some Army Engineer call signs as per the IRAC microfiche (no associated freqs. mentioned by Greg):

WUK4	Mt. Disapointment	WUK417	Fullerton
WUK406	Mt. Baldy	WUK418	Carbon Canyon Dam
WUK408	Chilao	WUK419	Santa Fe Dam
WUK409	Crystal	WUK420	San Antonio Dam
WKU411	Sepulveda Dam	WUK421	Prado Dam
WUK412	Hansen Dam	WUK422	San Dimas
WUK413	So. El Monte	WUK427	Woodland Hills
WUK414	Lytke Creek	WUK428	Santa Ana
WUK415	Whittier Narrows	WUK436	Mt. Disappointment
WUK416	Lake Matthews	WUK444	Mojave Dam
		WUK45	Vandenberg

LAWRENCE (NJ-???) has a list of frequencies he monitored at McGuire Air Force Base, New Jersey.

130.6500	Command Post (AM-mode)
148.0800	McGuire Ground
148.1000	Base Transportation
148.4750	Tanker Maintenance
149.2050	Flight Line Aircraft Maint.
149.2250	Ditto

149.4000 McGuire Ground
149.6000 Unknown traffic
150.1750 M M S
150.2000 Tanker Maintenance
150.2250 Base Operations & Cargo Control
163.4625 Security
163.4875 Base Police
163.5375 Med Net
166.2000 Flight Line Aircraft Maint.
407.4500 Crash/Fire
413.0000 Unknown traffic
413.2000 Unknown traffic
413.4500 Unknown traffic

Lawrence points out that anything to do with the KC-135 tankers in done by Air National Guard. He would like to know if anyone has frequency information for the Wing Commander's Net of O.S.I.?

INDEXES

"The recent RCMA General Survey indicated there was a strong desire by the membership that we print an index as part of the December issue", reports General Editor Bill Mauldin. An index by subject for 1984 appears in the April '85 issue. The December '85 issue contains a subject index for 1985 issues as well as an index by issue for '84 and '85.

1983 FEDERAL GOVERNMENT/MILITARY INDEX BY ISSUE

Jan 83: Programming "splinter freqs" into Bearcar 250
Programminn "images" for out-of-band reception
March AFB, CA, Pararescue C-130 frequencies
Darnell Army MAST Helos
MI Army NG/ANG Helos, USPS, Tank Plant
Hines VA, IL, MARS
Wurtsmith AFB, MI
Selfridge ANGB, MI
Chicago Area Misc.
Louisiana GSA, Nat'l Forests
VA Hospitals - AZ

Feb 83: Army Engineers MI, KY, LA, AR, CA, KS, PA
McCain Field (NAS), MS

Mar 83: FBI "Seeks to Thwart...Eavesdroppers
East/West Bay Area, CA, freqs.
Norfolk Naval Base/NAS, VA

Apr 83: McConnell AFB, KS
AFRES Command Post UHF-freqs
SAC Bomb Plot Units
Northeastern Colorado freqs.
Army NG freqs. OH, NY, TX, ME, IA, AR, NJ, MD, OR, MS, AL, CT, WI
New England Div. Flood Control Projects map & freqs.
Request for input for Nat'l Parks, Forests & Hist. Sites

May 83: Mobile, AL, area freqs
Army Engineers, MA
M-A-S-H definitions
Ft. Worth, TX, Dist. Army Engineers
Army Engineers, New England Net
Presidential Library protection

Jun 83: DVP rumors
Wright-Patterson AFB, OH
McConnell AFB, KS, corrections
Refueling Tracks/Anchors map & freqs.
VINSON secure communications equipment

Jul 83: 29 Palms MCAGCC
Camp Pendleton MCB
Fallbrook Naval Weapons Station
Air Refueling Freqs.
Willow Grove NAS, PA

Aug 83: CIA Career Opportunities
O'Hare AFB, IL, C-130 freqs., F.D. boxes, Army NG Helos.

Sep 83: Codes for aircraft identification
Army Control Towers
Army Reserve Freqs.
2002 Freq. mix problem

Oct 83: Air Force "Freedom of Information"
"U.S. Govt. Freq. Listings" book
U.S. Forest Service, Region 6
Codes for Aircraft Identification (concluded)

Nov 83: Sawyer AFB, MI
Blytheville AFB, AR
Marion, IL, Federal Prison
Sault Ste. Marie Army Engineers
Illinois Air National Guard F-4 (Springfield Capital Arpt)
Chanute AFB, IL, UHF freqs.
Dover AFB C-5A freqs.
Scott AFB, IL, UHF presets
McGuire AFB, NJ, UHF presets
Key West NAS, Fl
Seal Beach Naval Weapons Station, CA

Dec 83: Employment Fields of particular interest to the CIA
Elgin AFB, FL, UHF/VHF presets
USAF ATC, OK, presets
Alegheny National Forest, PA
Forest Service 10-codes
San Francisco, CA, area freqs.
Ft. Benning, GA, Mtn. Trng. Div. nets

CALL FOR CONTRIBUTIONS OF SPECIFIC AGENCIES

According to the readers' survey, members reported they wanted editors to ask in advance for specific information for widest possible coverage of areas of general interest. Great! Here are the deadlines I need the material by and the specific frequencies requested.

A couple of things, please.
(1) Please do not copy a list of frequencies from another publication. We must continue to respect copyrights.
(2) If another person was kind enough to give you the information you send in, be courteous and credit your source.
(3) Please distinguish between what you've personally confirmed and what you've "heard about" from others.
(4) Please be complete regarding frequency, repeater input (if any), location, agency using frequency, frequency use (dispatch, secondary, interagency, etc), channel number, special codes, unit numbers and callsigns, transmitter sites, links (if any) and any other special items of interest. If you want a complete and accurate list, that's what you have to send in!
(5) Please do not include contributions for these special projects in with other routine correspondence for the column.
(6) Don't forget your name, member number, and a self-addressed post card so I can acknowledge receipt of your material.

This does not mean that you should stop other column contributions. This is merely a timetable for special features. Please continue regular contributions as in the past!

RCMA

SPECIAL FEATURE

FEBRUARY 1986

AN OPEN LETTER TO ALL MEMBERS OF R.C.M.A.

From: John Clark, CA-OR-078
Iden Rogers, CA-RI-001
Kurt Swaney, KS-006

(This letter is intended to provide information and stimulate thought on both the recently passed California legislation regarding cellular radio telephone privacy and the currently pending Federal legislation regarding, in general, electronic communication privacy.)

The opinions expressed here are those of some concerned members of RCMA and do not necessarily represent those of RCMA, Inc.

THE CALIFORNIA CELLULAR RADIO TELEPHONE PRIVACY ACT OF 1985

In September, 1985, the California Governor approved the Cellular Radio Telephone Privacy Act of 1985, California Senate Bill 1431. You probably read about this legislation in the Newsletter. Initially, the legislation was designed to provide "private" cellular radio telephone service by prohibiting both casual and intentional monitoring of the cellular radio frequencies, as well as the sale of scanning radio equipment which could receive cellular radio frequencies. Many groups protested the legislation as being poorly written, ambigious, potentionally unconstitutional and in conflict with the Communciations Act of 1934. Their influence was enough to have the following statement included in the California Act:

> "It is not the intent of the Legislature to prohibit the manufacture, sale, possession, or use of electronic scanning devices, or radios, capable of intercepting or receiving radio frequencies other than or in addition to cellular radio frequencies, nor to prohibit the interception or reception of radio frequencies other than the unauthorized malicious interception or reception of cellular radio frequencies."

With this intention established, the Act then sets fourth penalties for any person who MALICIOUSLY monitors cellular radio telephone communications:

> "Every person who, maliciously and without the consent of all parties to the communication, intercepts, receives, or assists in intercepting or receiving a communication transmitted between cellular radio telephones or between any cellular radio telephone and a landline telephone shall be punished by a fine not exceeding two thousand five hundred dollars ($2,500.00), by imprisonment in the county jail not exceeding one year or in the state prison, or by both that fine and imprisonment."

Hence, due to the efforts of individuals registering negative views with their CA Assemblyman or Senator, and the influence of many organizations, including the American Radio Relay League (ARRL), the California Privacy Act was modified as to not effect scanning radios used in a NON-MALICIOUS manner.

If you are a California resident, you can request a free copy of California Senate Bill 1431 from your local Assemblyman or Senator. If you are not a Calfornia resident, you can request a copy from the Legislative offices at the State Capital, Sacramento, CA, 95814.

ELECTRONIC COMMUNICATIONS PRIVACY ACT OF 1985

Two days before the California Governor signed the California

Privacy Act, Rep. Kastenmeier, WI, introduced in the U.S. House of Representatives, and Sen. Leahy, VT, introduced in the U.S. Senate the Electronic Communications Privacy Act of 1985, H.R.3378 and S.1667, respectively. These Acts, currently identical in wording, are "To amend title 18, United States Code, with respect to the interception of certain communications, other forms of surveillance, and for other purposes."

On the House side, the Act was passed to the House Committee on the Judiciary. In turn, the Judiciary committee passed the Act to the Subcommittee on Courts, Civil Liberties, and the Administration of Justice. This subcommittee is responsible for determining if the proposed legislation is legal, and making initial modifications in the Act. To this end, the subcommittee has held two hearings on the Act. The first hearing was held on Sept. 26, the second was held on Oct. 24. They are scheduling a third hearing for sometime in the early 1986 session. The specific date will be set in late January and will probably be sometime in early to mid February.

Following the third hearing, the Act will go into "markup." At that time, any proposed amendments will be added or deletions made. At the present time, no changes have been made. All changes will occur during the markup period. Following markup, the Act will go back to the House Judiciary Committee where the committee can approve it and send it to the House floor with or without a recommendation, send it back to subcommittee for further work, or kill it for technical reasons. Once the Act reaches markup, you can read the daily Congressional Record at your library to find what changes have been made or proposed.

On the Senate side, the Act was passed to the Senate Judiciary Committee and, in turn, the Judiciary Subcommittee on Patents, Copyrights and Trademarks. The subcommittee opened the "hearing record" on November 13. The hearing record is an on-going collection of opinions regarding the proposed Act. Hearing records generally stay open for thirty days. As in the House, the Senate subcommittee will study the Act and then go through a "markup" procedure similiar to the House subcommittee and present their final version of the Act to the Senate Judiciary committee. Although we have no specific dates, it is quite likely the Senate subcommittee will not get to markup until early 1986, perhaps mid-February. Again, the version returned to the Senate Judiciary committee can be sent to the Senate floor with or without a recommendation, returned to subcommittee, or killed by the Judiciary committee for many reasons. Check the Congressional Record for a daily record of Act amendments/changes.

Once the House version of the Privacy Act is out of committee, it has to be approved by the full House of Representatives. Then differences between the House and Senate versions must be reconciled before the final, single, version of the Act is approved by the Senate.

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The Electronic Communications Privacy Act of 1985 makes changes in title 18 of the United States Code (USC). The Act is written in the form of statements to be added, word substitutions and deletions to/from the appropriate USC sections. It should be read with this in mind.

The Act defines "electronic communication" as "any transmission of signs, signals, writing, images, sounds, data or intelligence of any nature in whole or in part by a wire, radio, electromagnetic, or photoelectric system that affects interstate or foreign commerce." This definition replaces the "wire communications" definition currently used in the USC.

The most notable part of the Act, with respect to our interests, can be found on pages 2 and 3. This is an addition to the current exceptions, (a) through (f), found in section 2511(2) of title 18 of the USC.

"(g) It shall not be unlawful under this chapter for any person --

(i) to intercept an electronic communication made through an electronic communication system designed so that such electronic communication is readily accessible to the public.

(ii) to intercept any electronic communication which is transmitted --

(I) by any station for the use of the general public, which relates to ships, aircraft, vehicles, or persons in distress;
(II) by a walkie talkie, or a police or fire communication system readily accessible to the public; or
(III) by an amateur radio station operator or by a citizens band radio operator; or

(iii) to engage in any conduct which --

(I) is prohibited by section 633 of the Communication Act of 1934; or
(II) is excepted from the application of section 705(a) of the Communication Act of 1934 by section 705(b) of that Act."

Representative Kastenmeier's introductory remarks regarding this Act can be found in the Sept. 19, 1985 Congressional Record, pgs E4128 and E4129. In his introductory remarks, Rep. Kastenmeier, the Chairman of the House Judiciary Subcommittee on Courts, Civil Liberties, and the Administration of Justice, gives some background on the need for this legislation and a summary of the legislation. In particular, Rep. Kastenmeier notes that many advances have been made in the field of electronic communications since the Wiretap Act of 1968 was passed:

"These new modes of communication have outstripped the legal protection provided under statutory definitions bound by old technologies. The unfortunate result is that the same technologies that hold such promise for the future also enhance the risk that our communications will be intercepted by either private parties or the Government."

"The communications industry is sufficiently concerned about this issue to have begun the process of seeking protective legislation. This bill is, in large part, a response to these legimate business concerns."

Rep. Kastenmeier further notes that if the problem of electronic communications privacy is not addressed, "...emerging industries may be stifled." As well, Rep. Kastenmeier notes that "...if we do not act to protect the privacy of our citizens, we may see the gradual erosion of a precious right."

Regarding the Act, Rep. Kastenmeier notes that the Act is a byproduct of more than two years of effort by his Subcommittee:

"The bill has also been developed after careful consultation with the affected industries, civil liberties groups, and the Development of Justice. At this point none of these groups have endorced the bill, but each of these constituencies has confirmed the need for legislation in this area. It is my hope that in the weeks and months ahead the affected parties will work with the subcommittee in the spirit of cooperation and compromise to forge a bill which

meets this urgent problem."

Finally, Rep. Kastenmeier summarizes the bill into seven areas:

> "First, the bill extends the protection against interception from voice communications to virtually all electronic communications."
>
> "The bill also provides several clear exceptions to the bar on interception as to leave unaffected communication system (sic) designed so that such communication is readily available to the public; for example, walkie-talkies, police or fire communications systems, ship-to-shore radio, ham operators or CB operators are not affected by the bill."

The other six areas of the bill are outlined as: (2) eliminate the distinction between common carriers and private carriers,(3) create criminal and civil penalties for those who access information in an electronic communication system, (4) protect against unauthorized disclosure of third-party records, (5) and (6) enhance the interests of law enforcement by updating wiretapping and bugging provisions, and (7) regulate Government use of pen registers and tracking devices. (A pen register is used to record the number dialed on a telephone.)

The Act is 28 pages long (double spaced, large print). As can be seen from Rep. Kastenmeier's introductory comments, the Act is generally intended to update the USC to reflect current technology. We support Rep. Kastenmeier's efforts to update the USC. In addition, the Act does not appear to be directed toward the scanner radio hobbyist. However, the key point is the INTERPRETATION of the Act. It is very important that the interpretation be clear and all ambiguities be eliminated. In this regard, we hope to be of assistance to Rep. Kastenmeier and the House Judiciary subcommittee.

One interpretation concern extends from paragraph (g)(i), (reprinted earlier). This paragraph can be interpreted in at least two ways. The word "designed" leads one to view the intention of the paragraph as it pertains to electronic hardware design. This would imply that an electronic communication system designed without electronic encryption is "readily accessible to the public."

On the other hand, if this paragraph is intended to indicate that electronic communication systems used by services such as AM/FM broadcast radio, broadcast TV, NOAA Weather Radio, aviation/maritime weather broadcasts, etc, are "readily accessible to the public" and other electronic communication systems (unspecified), whether or not their communication signals are encrypted, are not "readily accessible to the public," then the paragraph is referring to the intended use of the electronic communication system message content, rather than the electronic structure of the signal. In this case, the word "designed" is misleading and the paragraph should be worded as to eliminate this ambiguity.

In its present form, the Act is unclear as to exactly how far its regulation of interception of electronic communications extends. There is no reference to scanner radio listening in the Act. While it would be nice to ASSUME that casual monitoring of radio communications is not prohibited by this Act, we cannot be sure this is the case. To resolve this will require a clear definition of "readily accessible to the public."

It would seem natural that any electronic communication system which uses radio wave propagation, ie, electromagnetic waves, regardless of the frequency, as its communication medium, is "readily accessible to the public." Title 47, section 605 of the USC, as established by the Communications Act of 1934, states:

> "No person not being authorized by the sender shall intercept any radio communication and divulge or publish the existence, contents, substance, purport, effect, or meaning of such intercepted communications to any person. No person not being entitled thereto shall receive or assist in receiving any interstate or foreign communication by radio and use such communication (or any information therein contained) for his own benefit or for the benefit of another not entitled thereto."

In 1934 Congress recognized that radio waves are susceptible to interception because of their natural properties. Radio waves, unlike electric current on a twisted pair of wires, an electronic signal on a coaxial cable, or a light signal on a fiber optics cable, are not contained or confined. Radio waves are present even in an individual's private residence. Therefore, in 1934 Congress established that INTERCEPTION of a radio wave is not illegal, since simple interception does not represent a threat to the privacy, or security, of the message content. However, DIVULGING the contents of the message or using the contents of the message for personal gain or benefit would represent a potential breach of privacy, and, therefore, is illegal.

As a law of nature, the properties of radio waves have not changed since 1934, and will not change tomorrow. Because of this, we believe the precedent established in 1934 still holds today. We understand, and in fact support, the desire of Congress to bring the USC up to date with current technology, but with regards to electronic communication system privacy, we believe it is the responsibility of the electronic communication system provider to evaluate the level of security necessary to protect the privacy of the electonic communication system messages, be they voice, data, telemetry, etc. Then the communication system provider should electronically and/or physically secure the electronic communication system to provide that level of privacy.

In conclusion, we believe that it is the disclosure and misuse of information that is a threat to electronic communication system privacy. Therefore, we urge that legislative emphasis be placed on this area, rather than interception.

***

This is one of the few times when your Newsletter is timely. Due to the Congressional Winter Recess, we were able to compile this information and have it appear in the February Newsletter. On the following pages you will find some important names and addresses. If you feel that the points brought forth here are valid, then we urge you to contact your Representative and Senator, as well as the members of the House and Senate Judiciary committees, and express your concerns.

Finally, to help us stay current on this topic, we are asking that you send a copy of any articles you read, or a synopsis of any reports you see or hear concerning the Electronic Communications Privacy Act of 1985. Each contribution will be acknowledged with a postcard. Hugh Stegman, Photo Editor, will compile a synopsis of the contributed information to appear in the Newsletter. Any information which you send us will be useful in our cordination efforts with other organizations that share our concern about this legislation. As well, if you write Congress, please send us a copy of your letter. Thank you!

Please send all information contributions to:

Kurt D. Swaney
PRIVACY ACT INFORMATION
PO Box 1198
Manhattan Beach, CA 90266

U.S. House of Representatives Judiciary Committee members

Peter Rodino, Jr		NJ, Chair	Hamilton Fish		NY
Jack Brooks	*	TX	Carlos Moorhead	*	CA
Robert Kastenmeier	*	WI	Henry Hyde	*	IL
Don Edwards		CA	Thomas Kindness	*	OH
John Conyers, Jr		MI	Dan Lungren		CA
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Edward Feighan		OH			
Lawrence Smith		FL			
Howard Berman	*	CA			
Frederick Boucher	*	VI			
Harley Staggers		WV			

* = Courts, Civil Liberties and the Administration of Justice subcommittee member

U.S. Senate Judiciary Committee members

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Charles Mathias	*	MD	Edward Kennedy		MA
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Orrin Hatch	*	UT	Howard Metzenbaum	*	OH
Alan Simpson	*	WY	Dennis DeConcini	*	AR
John East		NC	Patrick Leahy	*	VT
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Jeremiah Denton		AL	Paul Simon		IL
Arlen Specter		PA			
Mitch McConnell		KY			

* = Patents, Copyrights and Trademarks subcommittee member

Where to Write

Contacting your Representative or Senator is VERY easy. Simply address your letter to:

Representative _____
U.S. House of Representatives
Washington, DC 20515

Senator _____
U.S. Senate
Washington, DC 20510

To telephone your Congressman, simply call (202) 224-3121. You will reach the Capital Operator, who can give you any telephone numbers you might want, as well as transfer your call.

To request your own personal copy of the Electronic Communications Privacy Act of 1985, telephone (202) 225-3456 and request "H.R. 3378" or write:

House Document Room
U.S. House of Representatives
Washington, DC 20515

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Deadline	Subject area

Feb 15 Nat'l Park Service (Interior Dept.)
Includes over 330 Nat'l Parks, Monuments, historic sites & recreation areas

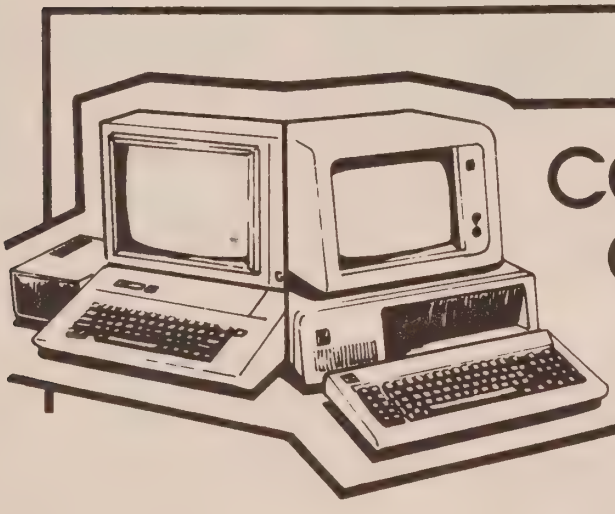
Mar 15 U.S. Forest Service (Agriculture Dept.)
Includes 155 Nat'l Forests, 19 Nat'l Grasslands and 18 land utilization projects

Apr 15 Veterans' Administration
Operates 172 medical centers, 16 domiciliaries, 225 clinics and 99 nursing homes.

May 15 Fed. Aviation Admin. (FAA)--but not VHF aero freqs.
Please do not include frequencies between 108 and 136 mHz.

That's it for another month. Hope you have a great one! And, don't forget to support what you asked to see in print!

73—
Denny



RCMA

COMPUTER CORNER

Editor: Bob Cheek
22320 SW 63rd Avenue
Boca Raton, FL 33428

NO COLUMN THIS MONTH

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INTERNATIONAL

This column is for reporting two-way communications frequencies above 30 MHz, radio system details, monitoring experiences, and any other information relating to monitoring in countries other than the United States and Canada. Send to:

Rickey Stein, 456 Barrymore Place, North Brunswick, NJ 08902

I will continue with more of Rafael Mirano's listings this month.

STATE OF MEXICO
El Estado de México (EdMex)

With the exception of the state capital of Toluca, all police activity in any city is under the jurisdiction of the State of Mexico police.

TOLUCA (State Capital)

138.340 mobile telephone input (output is 143.500 R)
138.490 mobile telephone input (output is 143.750 R)
138.590 mobile telephone input (output is 143.850 R)
143.500 mobile telephone output- repeater
143.750 mobile telephone output- repeater
143.850 mobile telephone output- repeater
148.450 State government
152.375 paging
154.175 City police
154.700 State Highway Police
156.400 State police
157.150 C.F.E. (Light and Power)
157.800 C.F.E.- repeater
158.275 C.F.E.
158.800 C.F.E.- repeater

State Police Intersystem for the following cities: 156.300

Tlalnepantla	Coacalco	Cd. Satélite (Satellite City)
Naucalpán	Ecatepec	Cuautitlán

Ecatepec (State Police and local dispatch) 154.400

NB: All of these cities are in the northern part of Mexico City and are considered the Metropolitan Zone.

It is also noted that all of the information previously presented for Mexico City is still valid. On thing that Rafael noticed on a visit there is the possible addition of Automatic Unit Identification to the patrol cars. A series of tones can be heard when a unit transmits. He also noted that the Mobile Telephone System appears to be abandoning its 140-142MHz system in favor of 440-443MHz. Bases were heard from 440.025-442.975 with the corresponding mobiles at 445.025-447.975. The system is a repeater type, fully automatic operation with 25kHz spacing.. It is quite busy and is a large system with lots of interesting traffic.

more to come from Rafael

••••••••

I am also in possession of a large report from Mike Britt after a trip to Guadalajara last year. I will present his entire letter over the next couple of months. Mike, as you probably know, was our Low Band Skip editor, and is an active monitor. For those of you who write to ask how does one go about monitoring in an unfamiliar territory, I would suggest that you read the following, study Mike's methods and learn well. This is the way that an experienced monitor tackles the problem. Read on!

'Accompanying me on my recent trip to Mexico was my 'old Bearcat 210', the only scanner I dared put throught the trials of traveling. I decided against the more compact BC-100 handheld, for the simple reason that the low band sensitivity on that unit is basically aweful, and the possibility of monitoring low band skip in Mexico was a chance I didn't want to miss.

As for taking the scanner in and out of Mexico, I had no problems. The scanner was in a shoulder bag, along with my camera equipment, which I carried onto the plane (in order to prevent the possibility of damage). There was only one occasion when the shoulder bag was even opened. That was at the airport in Guadalajara, just prior to boarding my return flight to Los Angeles. The check was routine:the Mexican agents were only looking for possible bombs or weapons, and the scanner didn't get a second glance.

I was in Mexico for one month, and spent more time in Guadalajara than anywhere else. As it is the second largest city in Mexico, Guadalajara has a multitude of frequencies to monitor. Most all of the activity is on the VHF high band, with a great deal of activity in the 2-meter ham band and below as well. There is some usage of the UHF frequencies, and only two local stations were found on the band 30 to 50 MHz (although I did hear skip from Argentina pagers on 32, 35 and 37.52 MHz!) I've limited my list of frequencies in this report to those in the VHF high band, since that is where the meat of the activity is in Guadalajara.

I took with me the RCMA Newsletters of June, July and August 1982 for the International columns in those issues have frequency lists for Guadalajara. Thus, I already had a head start when I began to monitor. Using the frequency lists as my guide, I set out monitoring some unknown channels,then began to search for new frequencies. I was able to discover several stations not previously reported,as well as to confirm some old identifications. When out in the town or sightseeing, I concentrated on identifying what units on the street belonged to what agency--as well as trying to determine what agency was on what frequency. By doing this, I could know what frequency to monitor when an emergency vehicle passed my location using lights and siren (I looked down on a major street from where I was staying).

My information comes from three sources: personal observation, information given by Mexican friends, and the Guadalajara telephone directory. When out on the street, I made mental, and sometimes written, notes about all the different 'policias' and 'ambulencias', as well as anything else with a two-way radio. In some cases, I was able to confirm frequencies by getting within earshot of a blaring radio unit and noting distinctive codes, and even a dispatcher's voice, in one case. A student doctor friend provided information about the five classes of ambulances, and other native friends explained the functions of the various policias. The phone book provided the correct names and other details about the various agencies (as well as clues as to other possible radio users).

POLICE AGENCIES:

1. City Public Safety Police (Dirreción de Seguridad Pública-Municipal de Guadalajara)(translates Public Safety Control)--this is the most visible policia in Guadalajara, and handles domestic law enforcement (everything but transit). Two types of units are regularly seen:patrol cars and pickups. All units are two tone: white with fenders of another color. That other color, however, seems to be different everywhere you look. The fenders come in black, blue, gold, grey, red, maroon, and possibly others. My best explanation for this is that perhaps each substation is assigned different color units. Different areas of the city have different color cars, it seems. Common to all units are red and blue cone style emergency lights. The Chevrolet pick-ups are most interesting. They are specially build, having jump seats within a partially enclosed bed. This makes them look like sort of cut-off Rangers. The jump seats are where the riflemen sit, as they ride shotgun,seemingly always ready to use their weapons (rather unsettling when you are an unsuspecting pedestrian).

FREQUENCIES: 154.000 primary 155.375 secondary ID: "Central"

2. State Traffic Police (Jalisco Tránsito)- this is the agency that is the transit police for all roadways in the Sate, except Federal highways. In Guadalajara, foot patrol officers are posted at major intersections equiped with a whistle and a pad of citations. (don't ask how they get violators tostop- although I expect the guns have something to do with that). The patrol units are distint: White Volkswagon rabbits with "JALISCO" in big black letters on the sides. A black racing stripe runs lengthwise over the roof and hood, and red and orange light bars top each cruiser. Motorcycles are of a make I couldn't ID, but they are of an older style with fat white fenders, and the officers can easily be separated from the more sharply attired Federal Highway police.

FREQUENCY: 155.200 (unknown if there are additional frequencies)
ID: "Central"

3. Federal Highway Police (Policía Federal de Caminos)- the only units of this agency I regularly saw in Guadalajara were motorcycle officers with new Yamahas (Complete with whip antennas and little blue teardrop strobe lights mounted on chrome poles extending from the rear fenders- fancy!). These guys have uniforms that outdo all the others:all black leather, trimmed in gold, dressy gloves and boots, pinstripped pants, and, of course, dark mirrored glasses. The cruisers I spotted on the highway were black and whites with blue strobes.

FREQUENCIES: 154.700- this seemed to be located in or near Guadalajara
154.730- this is a repeater, not in Guadalajara, but within reception range (more or less). Doesn't seem to be the same office as 154.700, however
ID: Both bases ID as "Central"

4. State Judicial Police (Policia Judicial de Jalisco)- this is something like a state marshall, although I couldn't get a clear definition from my local friends as to what their specific duties are. Although the radio channel was fairly active, I'm not sure I ever saw on of the units.

FREQUENCY: 155.500

5. "Radio Patrullas"- I know next to nothing about this agency, except that it is listed in the telephone directory under the emergency numbers in front, and in the state government section as well. None of the locals could tell me any more than is obvious: they have radio cars which patrol. This may be one of the 'unknown' law enforcement agencies heard on several on several frequencies.

6. State Prevention Police (Policía Preventura)--these may be those foot patrol officers whose main job is protection of banks and other such businesses (jewelry stores, etc.) They are recognizable by their light blue shirts. They are often seen in shopping malls, and all carry handie-talkies, and often some very mean looking guns (ie: of the automatic variety).'

to be continued next month....

Until next month-

MARKETPLACE

Gary M. Darcy, Editor

Members may advertise, free of charge, items wanted, items for sale, items for trade that are associated with the hobby of monitor/utility radio listening. No dealer ads will be accepted for this column. RCMA assumes no responsibility for the outcome of any transactions between members resulting from ads printed in this column. Send to:
RCMA MARKETPLACE, c/o Gary M. Darcy, P.O. Box 1329, Palmdale, CA 93550

Please be sure to include your membership number.

All Marketplace ads will be accepted ONLY on special forms available from this column's editor. Send a self-addressed STAMPED envelope (business size) to the address above to receive a supply of forms. Foreign members do not need to include postage on envelopes they send.

ATTENTION:

Members wishing to contact me by way of electronic mail may do so via the following services:

Service:	ID:
COMPUSERVE:	72527,2651
COMPUSERVE:	76566,1542
DELPHI:	GMDARCY
PEOPLE LINK:	INF568
MCI MAIL:	286-1087
TELEX:	6502861087

BBS:	Phone Number:
LAWBOARD	805-273-8476
COLOR CONNECTION 80	305-392-5591

FOR SALE:
Electronics & communications books: Radio Propagation Handbook, $4.00; Master Handbook of Electronic Tables & Formulas 3rd Edition, $3.00; Illustrated Dictionary of Electronics 2nd Edition, $3.00; The Complete Handbook of Radio Receivers, $3.00; The World of Satellite TV, $3.00; Practical Electronics Math, $3.00; How to Troubleshoot & Repair Electronics Circuits, $3.00; Radio Facility Charts of U.S. Feb-1955 (USAF), $3.00; Radio Amateur Handbook 1976, $3.00; Video Electronics Technology, $2.00; OSCAR: The Ham Radio Satellites, $2.00; 104 Weekend Electronics Projects, $2.00; Antenna Data Reference Manual, $2.00; Understanding & Using Radio Communications Receivers, $2.00; Radio Astronomy for Amateurs, $2.00; Specialized Communications Techniques, $2.00. All books Postpaid U.S. & APO/FPO only. Contact: MICHAEL W. SCHEEL (IA-11), RR#1 Box 221, Walcott, IA 52773 or phone 319-843-3559. (11-25-85)

FOR SALE:
Sonar FR-105. 150-175 Mhz; 6 crystal controlled channels includes manual, 2 power cords, mounting bracket, factory carton, manual tuning, NOT A SCANNER. $35.00. Contact: STANLEY SCHWARTZ (CA-SD-062), 1934 Pentuckett Ave., San Diego, CA 92104 or phone 619-232-5888 after 1700 PST. (12-01-85)

FOR SALE:
Sonar FR-2526 scanner. 147-157 Mhz and 471-481 Mhz, 10 crystal controlled channels, priority channel, delay, includes antenna manual, 2 power cords, mounting bracket, factory carton. $50.00. Contact: STANLEY SCHWARTZ (CA-SD-062), 1934 Pentuckett Ave., San Diego, CA 92104 or phone 619-232-5888 after 1700 PST. (12-01-85)

FOR SALE:
Regency TME 8-H-L-U. 8 channel crystal controlled. Crystals are free if you buy the unit. $100.00. Contact: MARK A. THOMAS (VA-051), 12163 Nokesville Rd., Bristow, VA 22013. (11-04-85)

FOR SALE OR TRADE:
Realistic DX-300 (excellent), $175.00. Realistic DX-302 (unused), $250.00. Sony ICF-2002 (unused), $175.00. May trade for programmable scanners. Contact: LARRY SNYDER (CO-039), 11664 W. Saratoga Ave., Morrison, CO 80465 or phone 303-979-2856. (11-25-85)

FOR SALE:
Electra Little Tiger. VHF converter crystalled for 159.150 Mhz. Excellent condition. $20.00. Contact: TOM HEIDERER (WI-006), 3888 S. Hanson Ave., Milwaukee, WI 53207 or phone 414-481-7760. (12-03-85)

FOR SALE:
Regency ACT-R-106. 10 channel, AC-DC, covers 30-50, 146-170 & 450-500 Mhz. $75.00. Contact: TOM HEIDERER (WI-006), 3888 S. Hanson Ave., Milwaukee, WI 53207 or phone 414-481-7760. (12-03-85)

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Crystals. 10.7 IF. Regency type. $2.50 each. Send SASE for list. Contact: TOM HEIDERER (WI-006), 3888 S. Hanson Ave., Milwaukee, WI 53207 or phone 414-481-7760. (12-03-85)

FOR SALE:
FCC Microfiche. State index dated 6-30-85. $3.00 per state. Contact: TOM HEIDERER (WI-006), 3888 S. Hanson Ave., Milwaukee, WI 53207 or phone 414-481-7760. (12-03-85)

photo department

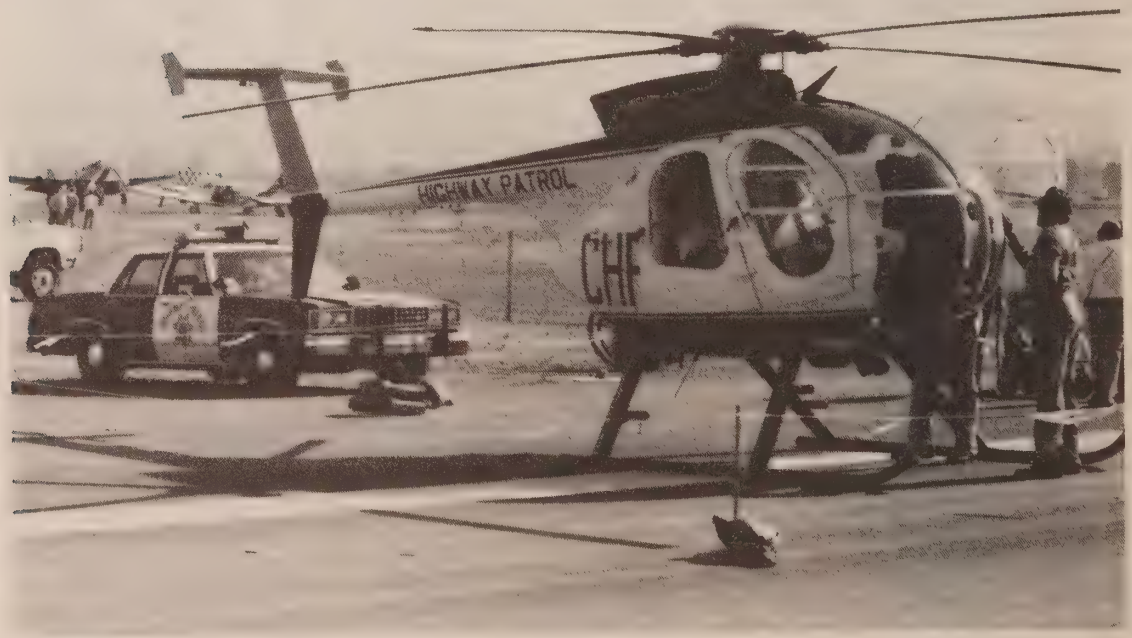
Send photographs of custom monitor listening posts, unusual or extensive monitor or two-way antenna systems, user station consoles (PD, Fire, Paramedics, etc.) or other monitor/two-way related equipment of interest. Photographs must be 3 X 5 inches or larger, black-and-white with good contrast, sharply focused and attractively composed. Each photo must be accompanied by details and explanations of equipment. Photos will not be returned. If you have questions, write first and please include an SASE. Send photos or write to:

Hugh Stegman, 11622 Exposition Blvd., #2, Los Angeles, CA 90064

CHOPPER TIME, AGAIN

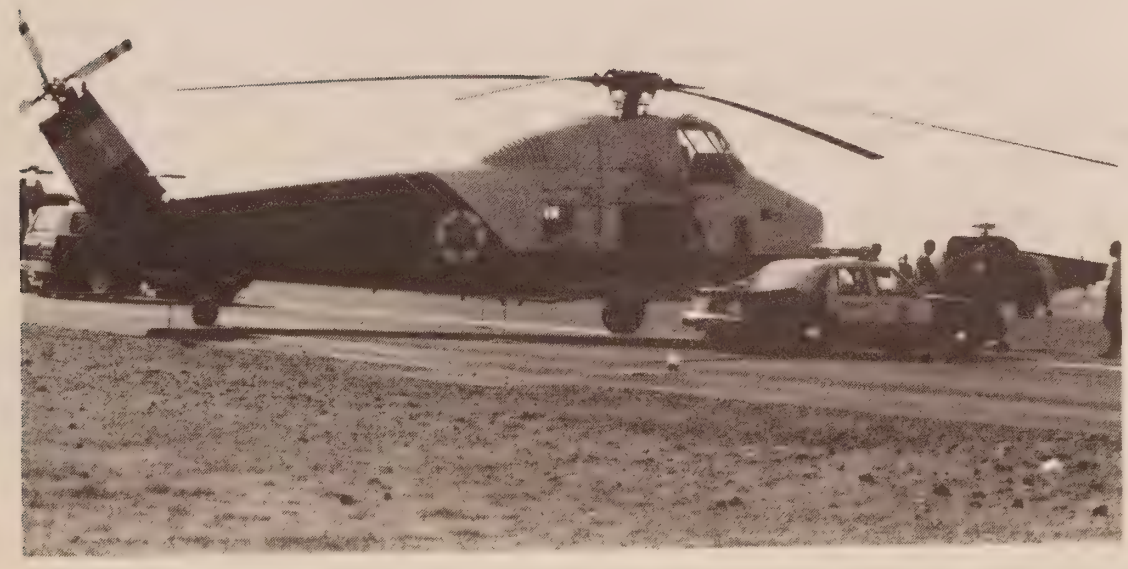
The great pictures of helicopters just keep coming, which is OK with me, cause I like 'em.

Our first shot comes from Gilles Thibodeau (CAN-101), who is certainly no stranger to these pages. It shows what looks like a Bell Long Ranger, being used by the Quebec Provincial Police. All ten PD channels are used, plus the usual air frequencies.



Gary L. Ray (CA-OR-292) sent the rest of this month's photos, which were taken at a southern California air show. The first (photo #2) is of a CHP Hughes OH-6A Cayuse, with a typical CHP car in the background. The helicopter can do 152 MPH, and has a range of 380 miles. According to recent L.A. news reports, a kid in a stolen Corvette managed to outrun one of these! Must have been a very straight road... No, he did not outrun the Motorola (or was it a Wolfsburg?).

Photo #3 shows a Chevy Blazer and an unidentified airship used by the Orange County Sheriff Department. Though Gary didn't say, I think this is the larger Hughes model, with 4 or 5 places.



Our last two pictures are a side and front view of a Sikorsky S-58, also belonging to the Orange County SO. These guys lumber along at 123 MPH max, range 280 miles, and they are BIG. See the sheriff's patrol car alongside for comparison. The Navy and Coast Guard use them all the time for mass rescues at sea, and a lot of the ones in civilian use have been retired from military service. This one does have the rescue winch over the door, easily visible on our left in the front view.

Orange County SO uses frequencies in the 460 MHz band. Note that nearly all helicopters used by public safety agencies these days have synthesized FM radios that can literally come up anywhere needed, as long as the radios used on the ground have their PL off. I'll try for a shot of one of these.

See you next month!

The cellular radio system fits in the proposed mobile satellite service band plan, which was originally reserved for the upper TV channels. Since the cellular system uses a wider band width than most commercial systems they are easier to pick up on a regular TV receiver. (You may have to fine tune just a bit, but it is available.)

The current and proposed FCC division of this frequency range is taken from page 65, Aug 1985 issue of IEEE Spectrum. TV channels are approximate.

	private mobile		input cellular		private mobile		output cellular	
	808	821	825	845	851	866	870	890	896
TV	69	71	72	75	76	79	80	83	84

Since TV UHF predates Cellular by at least a decade the argument that people are now building devices to listen to these new transmissions is not quite valid. Cellular is one big party line, and monitoring the party line was a rural hobby for at least 50 years before scanners were thought of.

J.R. Clark CAOR078

PUBLIC SAFETY

This column is for reporting Public Safety and Special Emergency frequency information, radio system details, radio codes, dispatch areas, unit numbering systems, etc. for poilice, sheriff, fire, forestry (except USFS), fish and game, highway patrol, state police, prisons, prisoner work camps, local government, highway & street maintenance, port authority/bridge maintenance, animal control, ambulances, paramedics, hospitals, life guards, ski patrol, search & rescue, flood control, civil defense and disaster organizations. Input and questions for this column must be sent to the proper regional Public Safety editor listed below.

Associated Public-Safety Communications Officers, Inc.

OFFICIAL TEN SIGNAL LIST

APCO states the numbering, sequence, words or word phrasing of the below listed signals may no be altered, nor may the reserved signals be otherwise implemented except by APCO. Any user may employ signal numbers upward, beginning with 10-40, as needed for local dispatching. RCMA publishes this listing in support of APCO and their uniform dispatch code efforts. We will print other dispatch codes, different from the OFFICIAL APCO listing, only to assist our membership in their continued monitoring hobby. It is hoped you find this listing useful.

10-1	Signal weak	10-19	(In) contact
10-2	Signal good	10-20	Location
10-3	Stop transmitting	10-21	Call ( ) by phone
10-4	Affirmative (OK)	10-22	Disregard
10-5	Relay (to)	10-23	Arrived at scene
10-6	Busy	10-24	Assignment completed
10-7	Out of service	10-25	Report to (Meet)
10-8	In service	10-26	Estimated time of arrival
10-9	Say again	10-27	License/Permit Information
10-10	Negative	10-28	Ownership Information
10-11	( ) on duty	10-29	Records check
10-12	Stand by (stop)	10-30	Danger/Caution
10-13	Existing conditions	10-31	Pick up
10-14	Message/Information	10-32	( ) units needed (Specify)
10-15	Message delivered	10-33	Help me quick
10-16	Reply to message	10-34	Time
10-17	Enroute	10-35 through 10-39 are reserved for future assignment by APCO. User option 10-40 upward.	
10-18	Urgent		

R.C.M.A. SOUTH CENTRAL

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POST OFFICE BOX 5053
AUSTIN, TEXAS 78763-5053

Send Public Safety and Special Emergency frequencies, radio system details, and questions for Alabama, Arkansas, Louisiana, Mississippi, Tennessee, Oklahoma, and Texas to the above address.

Greetings and welcome to the February column. We're just getting our first touch of winter weather this week (Dec. 1) and we can only wonder what it will be like by the time you're reading this issue. With the winter months upon us now, we'll probably be spending a little more time inside and have a chance to do a little more listening than we did this past summer, so hopefully more contributions are forthcoming shortly. We do have a couple of items in this months' mailbox so let's get to them right away.

From KEVIN, TX-141: 800 MHz Public Safety has finally come to the Houston Area. Missouri City Police and Fire Departments appear to be on a 10 channel, 5 frequency trunked system with talk-around capability. Channels 1 to 6 are assigned to the P.D. and the remaining to the Fire Dept. Frequencies used are:

856.9625	859.9625
857.9625	860.9625
868.9625	

The control channel changes periodically throughout the day.

Kevin also notes that while the International Police Chiefs Conference was held in Houston, H.P.D. used 460.075 (repeater) for the Conference Command Post. The channel has not been used since. Apparently, this frequency is a special type special events channel.

From BRAD, OH-138: Brad sent in some corrections to his previous list on the Dallas/Ft. Worth area profile given in the November 85 column.

CORRECTIONS TO NOVEMBER D/FW PROFILE

* Garland F.D. is on 154.310 not 154.130
* DeSoto P.D. is on 155.595 not 155.580
* Dallas Water Dept Ch.0 is 48.140 not 46.140
* Tarrant Co. SO Ch 2 R out is 37.240 (Dispatch) not 37.02.
* Ft. Worth Zoning Inspectors are on 39.180 not 37.180.
* Arlington P.D. Ch. 7 155.130 being used for computer checks only

Brad also has these additions and updates:

* Euless P.D. 855.2375 Ch 1 Dispatch
* Euless P.D. 855.4875 Ch 2 Car-to-car
* Euless F.D. 854.9875 Dispatch
  (also noted is a Euless license for 855.7375, agency/use unknown at present.
* Kennedale PD 859.4625 (old channel 154.100 no longer active.)
* TCU P.D. Ch 2--482.9875 is licensed to the Texas College of Osteopathic Medicine.
* New licenses for Bedford:

154.280 KNBT 450 Bedford FD
155.280 KNDT 227 Harris HEB Hosp
155.280 KNGJ 587 Northeast Comm Hosp
155.340 KNGJ 587 Northeast Comm Hosp

* Carrollton PD now also using 155.790 (KKO 921) simplex for computer inquiries.
* A fire mutual aid channel is apparently in the works as evidenced by the rash of new licenses on 154.280 for Ft Worth and Bedford FD's.
* Denton Co. S.O. will begin to patrol a newly formed community, Trophy Club. 24-hour patrol began in early November.

Also found in the microfiche listings:

* Irving, city of - 155.775 R
  158.820 S
* Daniel EMS/Burleson - 155.205 KNCR 749
* Tarrant Co. Emergency Squad - 47.58 KNCC 985
* Methodist Affiliates/Cleburne - 155.280
* Denton, city of - 159.330 WNAY 226

(Editor's note: this last one is apparently another example of inter-service sharing.)

And lastly, Brad adds that at this time no decision has been made on the new contract ambulance service for the Fort Worth area... more info when it becomes available.

From PHIL, TX-97 (via Robert TX-076): Montgomery Co. S.O. has plans to begin using a new channel/frequency plan. Changes planned are:

* 155.085 Ch. 1 S.O. East (155.640 input)
* 155.250 Ch. 2 S.O. West (153.860 input)

Magnolia V.F.D. primary is now on 154.340 R (156.075 input) Channeling in the radios are as follows:

Ch 1 154.430 R Primary
Ch 2 153.950 R Tomball FD
Ch 3 154.280 S Mutual Aid

Ch 4 155.085 R Montgomery Co S.O.
Ch 5 155.325 S Montgomery Co EMS
Ch 6 155.250 R " Co. SO West (future use-see above)
Ch 7 155.085 R " " " East (future use-see above)
Ch 8 154.950 S law enforcement intercity

From Robert TX-076: In the Austin area, the Capitol Police Dept. has begun using a second channel. The most recent use, during the "Goddess of Liberty" statue removal operation from atop the Capitol dome, indicates that a 2-channel plan is now in use. 460.125 KTN 450 (simplex ?), as well as 460.075, is now in use.

Austin Police Dept. has been using Ch. 9 (460.225) to train rookie cadets on "proper radio use". Robert listened to many 28's and 29's come back with many outstanding warrants. Of course, when you hear a dispatcher give back a return within a minute of running it, you soon realize what's going on...

The Texas Air National Guard is actively using 36.800 in the Austin area. The Guard is based at Mueller Airport and call this their "Foxtrot Mike" channel (FM transceiver). This channel was also active during the "Goddess of Liberty" removal operation. (ed. note: although this type of info generally belongs to the military col, it is included here for info purposes.)

And in the Houston area, Robert notes that Harris Co. S.O. Ch. 5 153.995 (154.775 input) is now being used as an info and want/warrant check channel.

Thanks for the reports, everyone. Ken and I also want to thank Jace, TX-134 and Darrel, TX-103 for responding to the Fall 1985 Reader Survey. Ken and I are looking over the comments and will try to use your suggestions. For those who did not respond to the survey, please send them in to us so we can get some feedback about the column...

That's about it for now from my end; I'll turn it over to Ken to finish off with any additions and closing remarks...

Greetings from Ken...Well I don't have much more info to add but I did get another newsletter from Marvin, TX-002, so let's run that here...

From "Scanning Houston" (formerly "SCAN-TEX")/Marvin, TX-002, editor:

TEXAS RENAISSANCE FESTIVAL

156.800 Main Operations Frequency
156.300 unknown use
151.625 Business Office
154.950 Traffic control, security
155.295 unknown use
154.800 Grimes Co. S.O. (possibly used)

(Editor's note: Some mention of this festival was made in the November issue. This is bit more detailed. Please note the (? illegal) use of the marine band frequencies.)

Thanks, Marvin, for your continuing efforts. I always look forward to receiving your newsletter. Marvin has changed the name of his newsletter and has also changed his mailing address -- new address: 10001 Club Creek Dr., Apt# 326, Houston, TX 77036. So please note the new address when writing to him requesting your copy of his newsletter.

The column has been rather short lately, I realize; however, as has been commonly complained about, input is rather sparse as well. I know you all are tired of hearing this every month, but the old computer sage: output equals input holds in this case too. Until next month, keep those lights blinking!

PUBLIC SAFETY — GREAT LAKES:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Illinois, Indiana, Wisconsin, Michigan, Kentucky, and Ohio:

Jack Waterman, 466 Kings Way, Mundelein, IL 60060

HELLO! Welcome to Public Safety/Great Lakes for February, 1986. Here's hoping that January was not too hard on you. Sorry about the several typos that crept into the last column. I was working against a very tight deadline and I didn't proofread as closely as I should have.

This month's first contribution is from column regulars **SCOTT** [WI-039] and **CARL** [WI-054]. Their timing was excellent, as usual, because this feature is WISCONSIN COUNTY HIGHWAY MAINTENANCE FREQUENCY UPDATES. Refer back to the map that appeared in the July, 1985 column.

Dane	151.055/159.045	Door	156.180/159.000
Douglas	158.775/153.785(?)	Dunn	159.195/156.045
Eau Claire	453.950/458.950	Lincoln	453.450/458.450
Pepin	150.995/156.135	Polk	151.010/159.045

And there you have it - updated freq's just in time for snow weather! They also included the following new information. The city of Fond du Lac Police and Fire Depts have recently converted their channels from simplex to repeater operation:

FIRE 154.310/153.800 [KSD 404] POLICE 155.730/154.770 [KSD 919]

The following freq's are for St Agnes Hospital, Fond du Lac:

155.175	Security/Disaster Response Unit	KNEZ 866
155.340	EMT Communications [HEAR]	KWX 967
155.400	EMT-Intermediate Communications	KWX 985
163.250	Paging	KNEF 706
463.000	MED-1 Paramedic Communications	KNIZ 775
463.025	MED-2 Paramedic Communications	KNIZ 775

Walworth County's 800 mHz system went on the air during July, 1985:

856.4375/811.4375	Sheriff's Dept Repeater	KNHY 580
857.4375/812.4375	Municipal PD's repeater	KNHY 580
155.115	Sheriff's Dept vehicular repeaters	

Thanks, SCOTT and CARL, for another helpful contribution.

--

Next we hear from **MIKE** [IL-014] another regular contributor. This month Mike provides us with an update on Chicago Fire Dept apparatus changes.

CHICAGO FIRE DEPARTMENT

APPARATUS& CHANGES 1985

NEW APPARATUS:

17 New pumpers by Emergency0ne have been assigned and are awaiting radios and other equipment before being traded out.

The new pumpers have GM 6T71D deisel engines and are automatics. The chassis is by Federal Motors,Inc. (A division of Federal Sign & Signal of BlueIsland ,IL.) The name of Chassis is Hurricane.The cab is of cab forward design low profile and is 92" wide. The Pumps are all 1250gpm by Hale and have 500 gal tank. All unit have pre-piped water ways to Elkhart Stang pipe. Two Mattydale boxes are located below the deck gun for the 1 3/4 lead out. Only 2-2½outlets are employed on either side of truck. However a 3½ outlet is located at front cab.next to the 4 inch suction. A 3inch rear discharge is provided for a total of 7 discharges.All vehicles euipped as Quick Water rigs. Another feature is the ability to add AFFF directly to booster tank to fight chem.spills and fires.

Below is list of rigs receiving the new units.

Eng.Co. 18	85 Em-0 1250/ 500	D-489	E-77	85 Em-0 1250/500	D-499
" " 19	85 EM-0 1250/ 500	D-490	E-112	85 Em0 1250 500	D-500
Eng.Co. 26	85 Em-0 1250/ 500	D-491	E-101	85 EM0 1250 500	D-501
" " 35	85 Em-0 1250/ 500	D-492	E-91	85 Em0 1250 500	D-502
" " 38	85 Em-0 1250/ 500	D-493	E-106	85 Em0 1250 500	D-503
" " 45	85 Em}0 1250/ 500	D-494	E-108	85 Em0 1250 500	D-504
" " 50	85 Em-0 1250/ 500	D-495	E-120	85 Em0 1250 500	D-505
" " 54	85 Em-0 1250 500	D-496			
" " 57	85 EM-0 1250 500	D-497			
" " 34	85 Em-0 1250 500	D-498			

Also being bought from Emergency One are 6 or more 95ft tower ladder units. Trk. CO.39 was delivered Oct.5 and other 5 companies that are schdaled to receive rigs will be one company in each district. A seventh rig is said to be onorder for OHare Field, however no other details available.

A 6x6 CRF rig for O' Hare Field is also on order for 1986 delivery.

NEW FIRE STATIONS:

Anew house for Midway is in planning stages. Two stations for OHare Field will replace the Center Station and North stations.Contrary to rumor a fourth house for OHare is not being built.

NEW COMPANIES:

A new apparatus was rebuilt from and old Mack-Platt Flying Sqd. for use as HAZ_MAT 1 (5-1-1) Rig was placed in service Oct.1 with 2 man crew which will eventually be increased as soon as men are trained The Haz-Mat teams will be called to all incidents or fires involving chemicals, spills,tank truck leaks,railroad wrecks. A new vehicle will eventually be designed. Rig is G-306 and is painted red with white over.

Thanks for keeping us up to date on CFD, **MIKE.**

--

Last month I provided a piece on "Devil's Night" in Detroit, despite the fact that it took place in October. Shortly after that column was mailed to **CAROL**, I received another contribution on the same subject. This time **MI-108**, who requests no further identification, provides some additional details on the freq's previously reported plus some additional freq's. Put this data in your file to retrieve next October.

The City of Detroit has had a happening which has become an annual event. The end of October has been onown around the country as Halloween, however in Detroit the night before known as Devils Night has been celebrated by some and for others it has become a night of hard work.

On Devils Night for the last few years vandals have set fires throughout the city. Starting with fires set in dumpster and rubbish fires vandals than went to garages, vacant homes, stores and onto large apartment buildings.

Arsonest have also taken this opertuinity to burn their property blaming vandals. Several people have been apprended setting their own cars and buildings on fire.

Last year for the first time since the riots of 1967 Detroit called for mutual aid from the suburbs to fight the Devils Night fires.

This year Detroit tried a new tactic. The news media in the area kept their advanced reporting to a minimum called on civic groups to patrol neighborhoods the DPW worked nights, police cadets walked beats, police patrol carswere equiped with fire extinguishers and the fire department operated from command posts.

Police using fire extinguishers put out many fires and the DPW using everything from pickup trucks to dump trucks and trucks used for street cleaning also put out many fires. However The fire department still had their hands full with the larger fires the other departments were not able to handle from the dumpsters and cars to the house and apartment buildings.

This year operating from seven command post Detroit had every fireman in the city working cancelling all vacations and leaves and using every piece of fire equipment available. Up to 14 pieces of fire equipment would run out of a command post and the command post that were not using their equipment would send equipment to the command post that were depleted.

No fire runs were given out on the, fire radio and fire radios repeater was turned off to keep all transmissions to the very minimum. Fire equipment had to return to the command post for new assignments.

Here is a list of frequices I monitored over devils night and which were used on Oct 29, 30, 31 1985.

154.310	Fire	traffic held to a minimum-mostly fire compaines asking for assistance-very few runs given out on the air
153.950	fire-mobile	
154.400	fireground	walkie-talkies
155.760	DPW	DPW being sent to fires-reporting fire-and repoting fires they put out
453.	police precincts	Each peecent was dispatched to ceck every report of fire and reported to the police command post
453.325	police car to car	
453.875	police east	east side command post-all patrol cars on the east side reported the results of their runs on this channel-also reported fires and used by the east side helocopter
453.550	police west	west side command post-all patrol cars on the west side reported the results of their runs on this channel-also reported fire and used by the west side helocopter
453.975	fire	used for radio communication with the fire commanders and from the fire commandpost

Other radio frequencies may have been used but with the amount of radio traffic on the police frequencies I did not have time to monitor other channels. Maybe other Detroit area monitors have other channels used at this time.

Thanks **MI-108** for the additional insights!

--

I met with **HENRY** [IL-204] at a recent RCMA Chicago Chapter meeting. Among other goodies, he provided a copy of the Marion County Sheriff's Signals and Codes:

SIGNALS

1	Call your office	2	Call the jail
3	Call the civil office	4	Report to Main HQ
5	Report to your HQ	6	Call by telephone
7	Emergency - serious situation	8	Meet
9	Disregard	10	Rush - quick action required
11	Confidential information	12	Reply via telephone
13	Army convoy	14	Plain clothes detail
15	Unable to Xmit details - security	16	Aircraft accident
17	Grant emergency right-of-way to ___	18	Handgun practice
19	Truck check	20	Report to garage
21	Turn repeater on	22	Turn repeater off
23	Speeding vehicle	24	Expedite - vehicle detained
25	Post meeting	26	Bring subject to court, notify
27	Traffic stop	28	Special detail
29	Region meeting	30	Special patrol assignment
31	Traffic congestion	32	MCF check (10-27)
33	Known burglar	34	Possible mental patient
35	Inspection	36	What is schedule for officer?
37	Any traffic for me?	38	No traffic for you
39	Drowning	40	Subject/vehicle wanted

41	Is lie detector available?	42	Is breathalyzer available?
43	Have in possession -	44	Advise traffic conditions
	J1 Personnel	45	Give FCC radio test
	J2 Property	46	In pursuit
	J3 Prisoner	47	Escort
	J4 Papers	48	Others present - don't Xmit
	J5 Checks	49	Platoons
50	Activate riot control	51	Radar
60	Drug case	65	Can monitor our freq's
66	Requested service unavailable	75	Contact on CB channel ___
80	Not in file as given	100	Hold all nonemergency traffic

CODES

1.	Emergency call for assistance	2	Personal hygiene
3	Lunch	4	Out of service/ subject to call
5	Check all banks	6	Use extreme caution

Thank you for providing that list, **HENRY.**

--

READER SURVEY FAVORITE FREQS - As promised last month, here are some more of your own "Top 12." They must be good because at least someone monitors them regularly.

FROM SUSAN MARIE [MI-134], SANFORD, MI

155.925	Midland County & EMS Dispatch
155.340	HERN [and school buses]
463.150	MED-7 Base
468.150	MED-7 Mobile
154.370	Midland County Fire Disp.
154.415	County Fire rptr input
154.445	Midland City Fire Disp.
154.070	City Fire rptr input
155.430	City/County Police Disp.
154.815	City/County rptr input
155.865	MEPS
155.370	POINT

FROM J.D. [IL-293], NAPERVILLE, IL

470.3125	Naperville PD
154.250	Naperville FD
155.340	MERCI
154.9650	Naperville Community Radio Watch
460.1250	Chicago PD
*****	Federal Agency
*****	Federal Agency
*****	Federal Agency
464.675	Fox Valley Mall Security
155.370	POINT
155.475	ISPERN
155.610	Aurora PD

FROM ED [IL-046], MILWAUKEE, WI

450.875	WTMJ - Ch 4 TV, freq 3
460.150	Milwaukee PD Ch 5
155.640	Milwaukee PD TAC/SWAT
460.225	Milwaukee PD F2
460.075	Milwaukee PD F1
154.295	So WI Fire Mutual Aid
154.130	Milwaukee FD F1 - Dispatch
154.385	Milwaukee FD F2 - Rescue Squads
453.375	Milwaukee County Emerg Govt
146.670	Milwaukee County ARES
453.225	Milwaukee County Sheriff F1
453.500	Milwaukee County Sheriff F2

FROM ERNST [WI-024], WAUWATOSA, WI

158.790	Wauwatosa PD
158.730	Wauwatosa PD F3
154.100	Wauwatosa DPW
159.120	Wauwatosa FD Disp
154.070	Wauwatosa FD fireground
153.860	West Allis FD
154.430	Waukesha County Fire
154.860	Jefferson County Sheriff
155.145	Jefferson County Sheriff
39.90	Ft Atkinson FD
155.730	Brookfield FD
460.325	Elm Grove PD

Thanks, **SURVEY RESPONDERS**, for that input. Most of you included some personal notes as well, such as **SUSAN MARIE** who wrote [in September] that she's finally taking EMT classes! She also provided some more area freq's:

155.760 Fire dispatch for Isabella, Gratiot, and Montcalm counties; St Louis city [electric & water depts]; and Ashley ambulance
154.160 St Louis FD, Gladwin County Fire, Alma FD, Ithaca FD
155.160 Gratiot County Ambulance, Gladwin County EMS

Always good to hear from you **SUSAN.**

Well, that's it for another month. Reviewing your comments in the reader surveys indicates that it would probably be a good idea to run data on the state police organizations for each column state again. I have maps for most, so look for that in upcoming columns after I've completed your "Top 12." In the meantime, take time out from your valentines to fire up the scanner and

TRACK 'EM DOWN !! WRITE 'EM UP !! SEND 'EM IN !!

PUBLIC SAFETY — NORTH CENTRAL:

Send Public Safety and Special Emergency frequencies, radio system details and questions as follows — Iowa, Kansas, Missouri, Nebraska, N. Dakota, S.Dakota, and Minnesota:

Kurt Swaney, P.O. Box 1198, Manhatten Beach, CA 90266-8198

NEWS: Greetings from California!

I apologize for no January column, but with my move from Lawrence, KS to Los Angeles, CA, I was unable to prepare it. However, now that I am here and settled in, I am anxious to present to you some ideas which I want to try implementing in our column.

I want to establish two new regular monthly column sections: MAJOR CITY and SERVICE TOPIC. The MAJOR CITY section would include frequency information for a particular city and the surrounding area. The SERVICE TOPIC section could be a detailed look at frequencies for a particular service(s) for the entire PSNC region. These two sections would provide coverage of the same material, but with different perspectives.

To allow you to know what the scheduled column topics are, I want to develop an editorial schedule for the column. By knowing the column topics well in advance, I hope this might help you in planning your contributions. Below is the editorial schedule which I propose. Keep in mind that this is a PROPOSED schedule and subject to change (or even elimination) based on your responses. The material deadline date were set to give me approximately three weeks to edit the column.

Public Safety North Central
Proposed Editorial Schedule

Nwsltr Issue	Major City	Service Topic	Material Deadline
Jun	Cedar Rapids, IA	State, Highway Patrols	Mar 10
Jul	Topeka, KS	Emergency Management, Civil Defense	Apr 10
Aug	Minneapolis/ St. Paul, MN	Fire Departments	May 10
Sep	Kansas City, MO	State Fairs, Special Events Amusement Parks	Jun 10
Oct	Lincoln, NB	County Sheriff	Jul 10
Nov	Bismark, ND	Media: TV, Radio, Print	Aug 10
Dec	Rapid City, SD	City Police	Sep 10
Jan	Des Moines, IA	Highway Maintenance, Transportation Departments	Oct 10
Feb	Wichita, KS	Emergency Medical Services (EMS), Ambulance Services, Hospitals	Nov 10
Mar	St. Louis, MO	Transit Authorities, Buses	Dec 10
Apr	Omaha, NB	Local Government, Schools Universities	Jan 10
May	Souix Falls, SD	Conservation, Natural Resources Depts, State & National Parks	Feb 10

others: Radio Codes?

What do you think about this schedule? I selected the MAJOR CITIES by picking one or two large cities from the PSNC region. HOWEVER, I do NOT want to leave out anyone! We can amend the list to include more cities (thus lengthening the rotation period), or I can simply print any additional MAJOR CITY information you send for cities not listed, while I hold info for scheduled cities until their scheduled time arrives.

Another possibility would be to rotate by STATE; ie, IA, KS, MN, MO, NB, ND, SD on a seven month basis. When your state is scheduled, I could print all MAJOR CITY contributions sent in for that state. Well?

I tried to select general areas of interest for the SERVICE TOPICs and also tried to stay within the column guidelines. I also tried to schedule topics somewhat seasonally and alternated from month-to-month between pure Public Safety topics and more general topics.

Finally, I propose a trade...an information trade, that is! Please feel free to request information from me...on frequencies, equipment, etc. As well, I have a copy of the FCC microfiche and I will be glad to look up information for you. The CATCH? In exchange for an your information, I request you send a column contribution, preferably of comparable length to the information you requested. As for postage, if your request can be answered on a postcard, I will cover the postage. If not, please send either an SASE (self-addressed and stamped envelop) or a separate stamp(s).

There you have it, my suggested column additions. I hesitate to say "changes," because I am not taking away anything already present, I'm just trying to make the column more useful to you. I hope to hear from you about these suggestions. All of the brainstorming that went into these suggestions came from myself...now its your turn to have a say!

ABBREVIATIONS:

S	simplex radio system	H	half-duplex radio system
R	repeater radio system	B	base transmit frequency
I	repeater system input freq	M	mobile transmit frequency

(H implies standard B-M, M-M and M-B frequency pairings)

FEBRUARY SERVICE TOPIC: Highway Maintenance, Transportation Depts

With the Winter months upon us, this is a good time to review the Highway Maintenance and Transportation Departments found in the North Central area. Can you help fill in the blanks? Corrections/ adittions are requested.

Much of this information came from Monitor America, SMB Publications, PO Box 244, Natick, MA 01760. Reprinted with permission.

IA: Iowa Department of Transportation

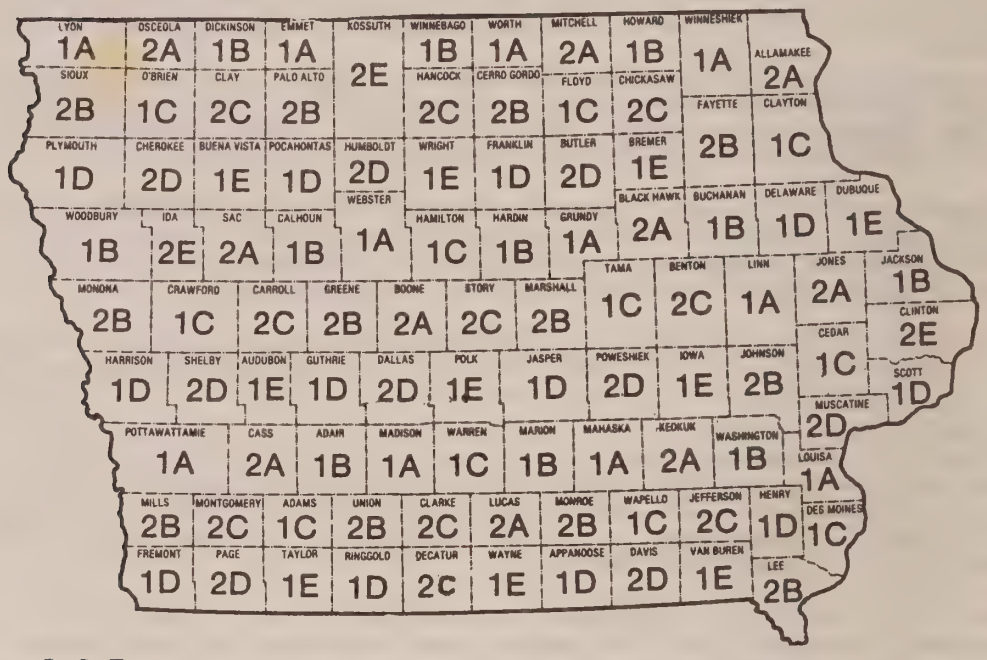
156.060	I	F-1	
156.105	I	F-2	
159.180	R	F-1	see assignments below
159.195	R	F-2	see assignments below

Maintenance Two-way Radio Channel & Tone

Tone

A - 192.8 - 7A
B - 167.9 - 6Z
C - 127.3 - 3A
D - 156.7 - 5A
E - 179.9 - 6B
F - 110.9 - 2Z
G - 103.5 - 1A

"F" and "G" tones are to be used to initiate communications only and are not to be used for the entire conversation. Place the PL switch in the monitor position.



Iowa D.O.T. map contributed by John, IA-023.

KS: Kansas Department of Transportation

47.060	H,B	F-2	Districts 2, 4, 6
47.120	M	F-1	
47.180	H,B	F-1	Districts 1, 3, 5
47.200	M	F-2	

Districts: 1 Northeast, 2 Northcentral, 3 Northwest, 4 Southeast, 5 Southcentral, 6 Southwest

Kansas Turnpike Authority

151.085	R	Maintenance (151.085 and 151.100 simulcast
151.100	R	Maintenance the same radio traffic)
159.210	I	

To provide coverage of the entire 240 mile turnpike, the nine Rptr sites are linked by microwave and simulcast on alternate output frequencies to prevent interference.

MN: Minnesota Department of Transportation

151.025	H,B	F-7	
151.055	H,B	F-8	
151.070	H,B	F-5	
151.115	H,B	F-6	
156.045	M	F-1	(paired with F-5)
156.060	M	F-4	(paired with F-8)
156.075	M	F-2	(paired with F-6)
156.135	M	F-3	(paired with F-7)

MO: State Highway and Transportation Department

151.040	R	Districts 2, 6, 8
151.070	R	Districts 3, 4, 9

151.130	R		Districts 1, 5, 7, 10
	I		Rptr input freqs?

NB: Nebraska Department of Roads

47.080			assignments? duplex system?
47.160			
47.200			
47.240			

ND: North Dakota Department of Highways

151.040	H,B	F-1	Devils Lake and Williston Districts
151.055	H,B	F-2	Bismark and Grand Forks Districts
151.085	H,B	F-3	Minot and Valley City Districts
151.100	H,B	F-4	Dickinson and Fargo Districts
156.060	M	F-1	
156.105	M	F-2	
156.120	M	F-3	
156.135	M	F-4	

Monitor America shows a duplication of the NB freqs. Does ND use the same freqs as NB in addition to the above?

SD: South Dakota Highway Department

154.025	R	assignments?
154.100	R	
154.115	R	
	I	Rptr input freqs?

MAJOR CITY: Iowa City, IA and Coralville, IA

This months' Major City is the Iowa City and Coralville, IA area. Iowa City, with a population of 51,000 is located about 20 miles South of Cedar Rapids and 50 miles West of Davenport. This frequency information was contributed by new RCMA member, Steve, IA-056. Steve collected this list while traveling through Iowa City. Corrections/ additions are requested.

154.725	S	Disp	Johnson County Sheriff, Operations	KGT 462
155.250	H,B	Info	Johnson County Sheriff, Information	KGT 462
155.850	S?	Port	Johnson County Sheriff, Portables	KGT 462
155.910	M	Info	Johnson County Sheriff (J.C. Sheriff patrols Coralville)	
154.890	M		Iowa Highway Patrol, LEA, Post 11	
155.370			intersystem	
155.430	M		Iowa Highway Patrol car-to-car	
155.445			CIS, also secondary aircraft	
155.475			mutual aid	
155.505			Iowa Highway Patrol aircraft	
155.655	B		Iowa Highway Patrol, Cedar Rapids	
155.685	B		Iowa Highway Patrol, LEA, Post 11	
460.050	R	F-1	Iowa City PD	KAB 217
460.100	R	F-3	Iowa City PD	KAB 217
		F-2 ?		
154.280	S		statewide FD mutual aid	KDE 291
154.340	S		Iowa City FD	KDE 291
37.220			Oakdale security	
155.205	S		Johnson County Ambulance	KYT 238
155.235	S		Capital City Ambulance	
155.340	S		F-1 statewide, C-MED	
163.250	P		Mercy Hospital paging	
461.825	R		University Hospital Security	

45.360	S		University of Iowa, parking	KRC 764
155.880	P	Pag	University of Iowa, paging	KJU 286
453.375	R		University of Iowa, physical plant	
453.475	R		University of Iowa, maintenance	
453.975	R		University of Iowa, security	KYK 481
162.475	S		NOAA Weather Radio, Cedar Rapids	
162.550	S		NOAA Weather Radio, Des Moines	
166.250	S		KCRG TV	
170.150	S		KGAN TV	
450.050	R		KRNA FM	
155.055	S		Iowa City public works	KFG 429
156.050			Iowa Department of Transportation	
156.105			Iowa Department of Transportation	
156.255			Johnson County public works	
159.180	R		F-1, Iowa State Highway Commission	
159.195	R		F-2, Iowa State Highway Commission	
			(see SERVICE TOPIC for more info)	
163.410	S		US Army Corp of Engrs: Coralville rec/lake area	
163.4375	S		US Army Corp of Engrs	

Thank you Steve for this excellent listing. This is a good example of how a MAJOR CITY listing can be prepared. Try to include general information about the area, call signs, system type and frequency designators and assignments.

CORRECTIONS: My mailing address zip code is 90266-8198, not -1198. As well, the last four digits are still optional. Part two of the index will be delayed indefinitely.

NEXT MONTH: MAJOR CITY: Lawrence, KS
SERVICE TOPIC: EMS, Ambulance Services, Hospitals

PUBLIC SAFETY WEST

SEND PUBLIC SAFETY AND SPECIAL EMERGENCY FREQUENCIES, RADIO SYSTEM DETAILS AND QUESTIONS FOR ALASKA, ARIZONA, COLORADO, HAWAII, IDAHO, MONTANA, NEVADA, NEW MEXICO, OREGON, UTAH, WASHINGTON AND WYOMING TO:

GEORGE N. HOGGATT, 17473 E. 16TH DR., AURORA, CO 80011
ELECTRONIC MAIL: <COMPUSERVE:75376,673> <DELPHI:JORG> <SOURCEMAIL:BBZ812>

COLORADO

Miscellaneous new frequencies for Colorado.

AURORA (not in use as of early December 1985)

This is a Public Safety trunked system

BASE	MOBILE
856.7625	811.7625
856.9375	811.9375
856.9625	811.9625
856.9875	811.9875
857.7625	812.7625
857.9375	812.9375
857.9625	812.9625
857.9875	812.9875
858.7625	813.7625
858.9375	813.9375
858.9625	813.9625
858.9875	813.9875
859.7625	814.7625
859.9375	814.9375
859.9625	814.9625
859.9875	814.9875
860.7625	815.7625
860.9375	815.9375
860.9625	815.9625
860.9875	815.9875

PARKER FIRE PROTECTION DISTRICT
This is a Fire conventional system

856.2625	811.2625	Ch. 1 Dispatch
857.2625	812.2625	Ch. 2
858.2625	813.2625	Ch. 3

Their VHF high band channel – 154.145 is
still in use with some simulcasting but
all FPD equipment seems to be 800 Mhz

CU MEDICAL CENTER POLICE
854.9625 809.9625 conventional system
in use

STAPLETON INTERNATIONAL AIRPORT
530 Khz KNID798
motorist information station
Local Government fixed station

STATE HEALTH DEPARTMENT
170.225
weather–pollution remote monitors
Local Government fixed stations

WASHINGTON Ron CA-VE-013

King County DPS Police:During a recent SAR mission in southeast King County near Lester/Greenwater the following frequencies were in use.

145.790	Simplex 2 meter car to car. (heard Sam-71 and Car-59)
153.755	"OES" base KBL-995 (F3) (heard cars 55,56 and Command Post)
47.500	Air to ground units (KIRO Chopper-7,SnoCounty,Army 116)
154.965(R)	F-2 (153.995in) (OES cars 55 & 56)
122.900	Air-AM (air-air coordination)
460.500	Tac-1 King County Radio and C.P.

Seattle Police:New Motorola CentraComm consoles are being installed.Features include cross-patching one frequency to another and multiple alert toned.

3 tones(beeps)in succession=major crime alert

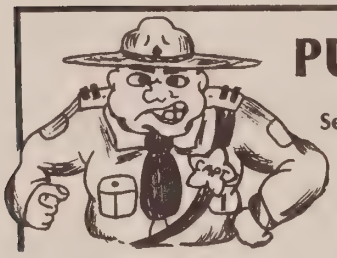
1 tone(beep)approx-every 10 seconds=air closed/emergency radio traffic only.

Hi/Lo tone=unknown(console shows A.P.B.)

In addition,the Chief Dispatcher has a second console capable of at least monitoring Seattle Fire,King County Police,all S.P.D.frequencies and WSP.

King County Fire District 46:A new satellite station is under construction in the Krain area between Auburn and Enumclaw.The station will be 1,280 square feet.The location is 39402 244th Avenue S.E.The station will have room for-a pumper,aid car and small office.This fire district covers approx.16 square miles.

Washington State Patrol:Monitors in the King County area(155.580)have no doubt heard helicopter "J-42" during the afternoon rush hour.This is none other than Paul Brendle of KIRO-Radio in the KIRO Copter.Brendle has a special state commission to assist the troopers in this area.You can hear all the air to air "chit-chat" on 122.750 AM between traffic reporters in the Seattle area.



PUBLIC SAFETY — SOUTH EAST:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Florida, Georgia, N. Carolina, S. Carolina, W. Virginia and Virginia:

COLUMN EDITOR WANTED

PUBLIC SAFETY—CALIFORNIA

P.O. Box 3962 Santa Fe Springs, California 90670-1962

Welcome to the February edition of the California column! We'll start off the month with a suggestion to all of you licensed Ham operators. Send a card or letter to us here at the Calif. column to let us know your name, call sign, RCMA ID (optional, you don't have to be a member to play) and what frequency(ies) you can be reached on. This will allow your fellow monitoring enthusiasts to contact you to share the latest freqs. and other info.

From Cary (CT-032): The KIIS AM/FM Traffic Helicopter can be interesting listening during the peak traffic hours. From his position "Commander" Chuck can be heard in "Yellow Thunder" over the Greater LA area. You not only get insight into the commute problems, ahead of the general populace, but also get some idea of how the reports are put together. It is also not unusual to find out how Chuck did on his date the night before. The base at KIIS is simplex, but you often fill in the rest with what you can copy.

KIIS AM/FM LA AREA 450.950

The Calif. column editors now have access to the FCC 2/84 State index on Microfiche. If you have a specific area which we can research for

you, drop us a note. The file is indexed by state, city and then agency.

Thomas (PA-017) asks if anyone has any new information on the Southern CA RTD and future subway systems.

From George (CA-SD-058):

The San Bernardino City Police Unit Assignments and Frequencies

Adam	: Downtown	| KEX-310
Baker	: South End	|
Charlie	: North End	|155.655 F-1
David	: North West	|156.210 F-2
Easy	: East	|154.740
Frank	: North East	|_____
Henry	: Dog Unit	
Ida	: ID Unit	
Lincoln	: Lt.	
Motor	: Motorcycle (Traffic)	
Narc	: Narcotic Unit	
Paul	: Police Asst. (civilian)	
Roger	: Reserve Unit	
Sam	: Sgt.	
Tom	: D.U.I. Unit	
Victor	: Chief, Vice Chief, and Capt.'s	
Whiskey	: Central City Mall Patrol (F-2) 156.210	
X-Ray	: M.E.T (Multiple Enforcement team)	
Zebra	: Extra unit (Roving Patrol)	
14	Pumper	

* = Not currently radio equipped.

From Randy (CA-OR-230):

The Big Bear Area

In addition to their own communications, Big Bear Sheriff also dispatches for Big Bear Lake F.D., Big Bear City F.P.D. and after hours for Big Bear Lake Municipal Water District and Big Bear City local government.

Big Bear Lake 10 and 12 CH Radio Plan

*	1	154.190	Fire "Green" KYB600 "Big Bear Comm" Dispatch
*	2	154.325	Fire "Red"/Tac 2 KYB600 "Big Bear Comm" Cntywide Mut. Aid
*	3	154.280	Fire "white" KBY600 "Big Bear Comm" Statewide mut. Aid
	4	154.295	Fire "Fireground"/Tac 4
	5	154.070	Fire "Car to Car"/Tac 5
	6	154.265	Fire "Command"/Tac 6
*	7	154.740	Sheriff "Freq 4" KMB900 "Big Bear" Dispatch
	8	155.775	BBL Public Works "Station Kilo"
*	9	155.835	BBL Municipal Water District "Water Base"
*	10	155.920	CLEMARS KMA314 "Big Bear"
	11	155.400	Med Net (Bear Valley Paramedics F-3)
	12	155.340	HEAR Net (Bear Valley Paramedics F-2)

--Other Frequencies--

42.60 CHP "Copper"

* 154.490 Big Bear City local Gov't KVX322 "Big Bear Comm"

155.205 Bear Valley Paramedics F-1 "Bear Valley"

* 155.970 Sheriff "Freq. 1" KMB900 "Big Bear" Countywide Common

151.445R CDF "Local West" "San Bernardino"

171.475R USFS "San Bernardino"

George also adds 155.160-S.B.P.D. ?...Orange Show Security ?

From Ed (CA-RI-013): a new CHP office is scheduled to have opened in Nov. '85 in Temecula Ca. The office will be shared with the DMV in a location near Jefferson Ave.

The new Area office will be staffed by three sergeants and 26 officers, with more personnel added gradually. The new office will service the southwest portion of Riverside County, including the operation of inspection stations for both commercial vehicles in both directions of I-15. Using scales, the station will look for trucks carrying excess weight. (Bet the Truckers can't wait! Ed.) Ed suggests that dispatch will probably be by San Bernardino Dispatch on 42.54. If anyone has a confirmed freqs. drop us a card.

Ed also writes that Corona P.D. now has a helicopter, known as Air 1.It can use 151.385 and 154.280 as he heard it on a radio test.

CDF has abolished Region 5. It will be split up among the other regions, with Region 6 getting Santa Barbara and San Luis Obispo.

From Cliff (CA-AL-029): A service search on 453.300 (San Jose Public Works) netted the following ID's;

3107, 3717 to 3724, 3825 to 3860, 3941 to 3937, 3942 (10-21), 3531 to 3530, 3937 to 3949, (10-87 to yard), 3937 to 3942, 3533, 3532, 3531 to 3530 (west yard), 3105 to 3114 (is 3110 in shop?), note: 3100 series seems to be Signal Repair!

Can other member provide more info on identifiers used by S.J.P.W.?

From Ed (CA-LA-277):

Crescenta Valley County Water District

Frequency-48.280 MHZ

Transmitter is located in the maintenance yard at Sycamore and Glenwood in Verdugo City.

Unit Number	Use
1	General Manager
2	Superintendent
3	Crew Chief
4	Service truck
5	Service truck
6	General Service/Sewer Maint.
7	General Service/Pumper
8	Foreman
9	Meter Reader
10*	Gardener
12*	Compressor truck with jackhammer

* = Big Bear Dispatch can transmit on this frequency as well as through Fire and S.O. intercoms (on the dispatch consoles).

S.O. Unit Numbering

6C	Capt.
6L	Lt.
6S1 to 3	Sergeants
6D1 to 5	Detectives
6P1 to 20	Patrol Deputies *
6B1 to 20	Reserve Deputies
6k9	Canine Deputies
6 Rescue 1 to 20	Search and Rescue

CHP Units

101-30	CHP-West
101-31	CHP-Central, North
101-32	CHP-East (CHP Units Call Big Bear on 42.60, Big Bear answers on 154.740.)

* (4 patrol areas; 2 in Big Bear Lake, 1 in Big Bear City, 1 in Fawnskin, North Shore.)

Big Bear City F.P.D.

Sta. 1-	Big Bear city H.Q.		Sta. 2-	Sugar Loaf	
	2931	Engine		2972	4wd Rescue Truck
	2941	4wd Engine		2982	4wd Quick Attack
	2942	4wd Engine			
	2961	4wd Water Tender			
	2971	Rescue Van			
	2981	4wd Quick Attack (Heavy Rescue)	Admin.-	2900	Fire Chief
	Snowcat 1			2901	Asst. Chief

Big Bear Lake Fire Dept.

Sta. 1-	Central H.Q.		Sta. 2-	West	
	3112	4wd Patrol Pumper		3142	4wd Engine (PCF)
	3141	4wd Tele-Squirt			
	3134	Engine (PCF)	Sta. 3-	East	
	3161	Water tender(PCF)		3143	4wd Engine (PCF)
	3171	4wd Rescue truck			
	3172	4wd Rescue modular	Admin.-	3100	Fire Chief
	3181	Snow Tractor		3102	Batt. Chief
	3121	Fire Prevention			

Bear Valley Community Hospital Paramedics

Med 1	Hi-Top Van	Med 2	Hi-Top Van
Med 3	lo-Top Van 4wd	2 units are on 24HRS a day.	

Yucaipa S.O. Unit Numbering

4C	Capt.
4L	Lt.
4S1 to 3	Sergeants
4D1 to 4	Detectives
4P1 to 15	Patrol Deputies*
4B1 to 15	Reserve Deputies
4A1	Motor Pool
4V2	Public Affairs

Fish & Game- 151.430R

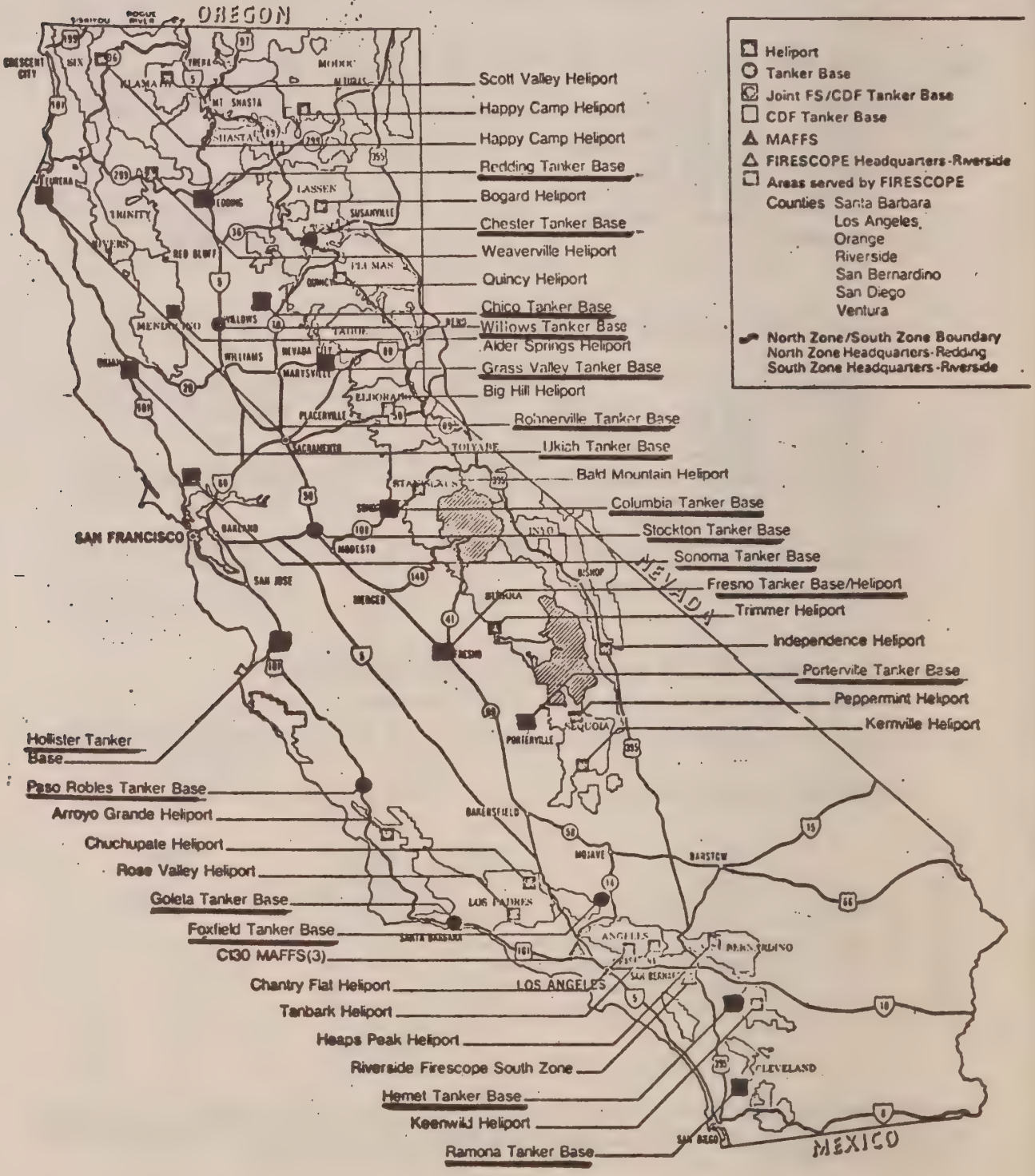
5300	Capt.
5310	Lt.
5311 to 1411	Wardens

From Mike (ID-001): There is a "pirate" repeater on 49.99Mhz. It seems to be in the San Pedro area based on the locations given by the persons using it. Give a listen and let us know what you hear.

From Carl (WI-54): 462.975 Lifeflight dispatch.

From Cary (CT-032): In Orange County "white" 460.150 is an interesting freq. The channel is used for short range car to car. the Huntington Beach Helicopter HB 1 can be heard spotting drunks and speeders, directing ground units to intercept. There is a lot of other unusual traffic I won't get into. Since it is simplex, you need to be in the Orange county area. A UHF gain antennna will boost your range.

Air Attack Forces In California



RAILROADS

Gary L. Sturm and
Bill Farmer, Editors

Send information about railroad frequencies and their uses, railroad radio system details, and related questions to:

Bill Farmer, P.O. Box 1838, Thousand Oaks, CA 91360

Greetings once again from the co-editors of the Railroads Column. Gary has a new address, so in case some of you want to write to him, here it is: Gary L. Sturm, 4511 Columbus Avenue, Apt. I-61, Anderson, IN 46014. Contributions may also be sent to Bill's address above.

Our column has an international flavor this month due to a lack of contributions from the U.S. As always, we need data from our readers to keep this column going. Now that the holiday season is over, how about taking a few minutes to write to us about your favorite railroad?

CANADIAN PACIFIC (CP RAIL)

contributed by GILLES THIBODEAU (CANA-101)

160.185		Montreal
160.425		Montreal
160.875		Montreal
161.115	Ch 4	Montreal
161.145		Lachine
161.175		Montreal
164.430		Montreal
414.4875		Cote St-Luc/Montreal
451.175		Montreal
469.225		Lachine & Montreal
469.600		Montreal
159.885		Montreal police

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161.115	Ch 4	Road - lineups between Lac-Megantic, Que., Brownville, Maine, and St. John, New Brunswick
161.175		MW - lineups between Farnham, Sherbrooke, & Lac-Megantic
161.475	Ch 1	Yard - Lac-Megantic
161.325		Train movement from Montreal to Lac-Megantic

Rob Berezowski, our Canada editor, checked out some CP frequencies in Regina, Saskatchewan. He found Road Channels #1 and #4 (161.475 and 161.115) both active, with 161.115 used to relay Manual Block System clearances. Other active frequencies with unknown uses are 161.175, 160.995, 160.605, 160.635, and 161.265. Rob also sent an article from the Regina Leader-Post which said that CP Rail was installing talking hotbox detectors in the Prairie Region. 22 units were to replace existing installations, while 8 new ones would be added. They cost $160,000 each.

CANADIAN NATIONAL

contributed by GILLES THIBODEAU (CANA-101)

160.575	Montreal
414.3375	St-Alexis
451.075	Montreal
451.275	Montreal
451.850	Montreal
452.650	Montreal
452.7375	Montreal
462.750	Montreal
463.050	Montreal
463.225	Montreal
463.875	Montreal
469.0125	Montreal
469.350	Montreal
469.650	Montreal
148.535	Montreal police?

VANCOUVER ALRT

By the time you read this, the new ALRT (Advanced Light Rapid Transit) system should be operating in Vancouver, BC. It was scheduled to begin regular service on January 2. Rob Berezowski, our RCMA Canada editor, forwarded a packet of material on ALRT which was sent in by Sid Elliot (CANA-109).

The ALRT line runs from downtown Vancouver about 15 miles southeast to New Westminster. The trip takes 27 minutes. In the downtown area, an old CP Rail tunnel was taken over and enlarged to carry the two rapid transit tracks, one above the other. After emerging from the downtown subway, most of the line is on an aerial structure.

Driverless trains will carry up to 100,000 passengers per day. The automatic train control system being used is the West German SELTRAC system. This is the sixth system in the world to operate without attendants in the cabs of the trains. There are attendants, but they will circulate through the trains and stations to provide assistance, information, and security to passengers. Each attendant will carry a hand-held two-way radio.

114 rapid transit cars are being built for this first phase of the project. Each has space for 40 seated passengers and 35 standees. There are two radio intercom units in each car so that passengers can call for help in an emergency, and a PA system allows personnel at the Control Centre to make announcements to passengers. The interesting feature of the cars is that they do not use conventional traction motors. Instead, linear induction motors provide the propulsion. There is a structure between the rails which reacts magnetically with a device on each car to push it along. The same system is used on the Scarborough line in Toronto, which opened in March of 1985.

Sid has found three frequencies used by the ALRT system. They were printed in the October 1985 Canada column, but Rob suggested we repeat them here in case you missed them. We hope Sid will continue to monitor the ALRT system and that he will find the frequencies for the PA and intercom systems. Or maybe they will use the road channel

with tone-coded squelch.

410.4875	Road
410.2875	Road in subway portion—Stadium station to Granville & Burrard station
410.0625	Burnaby Maintenance Centre

During the test period, there were a few operating problems. A 15-year-old boy was killed by a train last August when he climbed a drain pipe to the roof of a station, and then up a cable onto the tracks about 35 feet above ground. In September, two trains collided when one train under computer control switched onto a storage track where another train was standing. Officials said that a human controller had failed to tell the computer that the storage track was occupied. It seems to your editor that an automated system should have track occupancy detection circuits on such storage tracks to prevent accidents like this.

SAN DIEGO TROLLEY

Jeff Lee (CA-OR-012) reports that security is on 160.935 MHz.

TAMPA, FLORIDA

by JOE M. LEWIS (MD-015)

160.590	SBD Road, also Dispatcher
161.100	SBD Crew channel
160.290	SBD Yard, not much activity
161.460	SBD Carmen
161.370	New channel, heard reference to Tampa Coach Yard

CAPE COD & HYANNIS

by BARRY BIRCH (MA-148)

In the October column, a comment was made that nothing was heard on the CC&H frequency of 160.725. While riding their train a couple of years ago, I asked the owner himself for their frequency. He said that he didn't know it, but that I wouldn't hear it, since they have only portable radios, and no base station. Maybe this answers the question.

QUEENSLAND RAILWAYS (AUSTRALIA)

contributed by GARY L. STURM (IN-045)

168.520	Ch 1	Road - systemwide
168.640	Ch 2	Road - systemwide
168.565	Ch 3	Road - systemwide
168.775	Ch 4	Road - systemwide
494.925	TX1	Commuters - Brisbane south system *
494.875	TX2	Commuters - Brisbane south system *
494.750	TX3	Commuters - Brisbane south system *
499.150	RX	Commuters - Brisbane south system *
494.675	TX1	Commuters - Brisbane north system **
494.775	TX2	Commuters - Brisbane north system **
495.150	TX3	Commuters - Brisbane north system **
499.875	RX	Commuters - Brisbane north system **

*south and west of Roma Street station
**north of Roma Street station

454.750/464.250	Yard - Acacia Ridge
454.750/464.250	Yard - Mayne electric car servicing shed (Brisbane)
457.950/467.450	Yard - Moolabin-Tennyson
457.875/467.375	Yard - Rockhampton
457.875/467.375	Yard - Roma Street station (Brisbane)
454.750/464.250	Yard - Toowoomba
457.875/467.375	Yard - Townsville
457.950/467.450	Yard - Whinstanes

5901.5 KHz ***	Ch 1	Construction Gangs - Northern & Central Divisions
9783.0 KHz ***	Ch 2	Construction Gangs - Northern & Central Divisions
5378.5 KHz ***	Ch 3	Construction Gangs - Northern Division

***Upper Sideband transmission

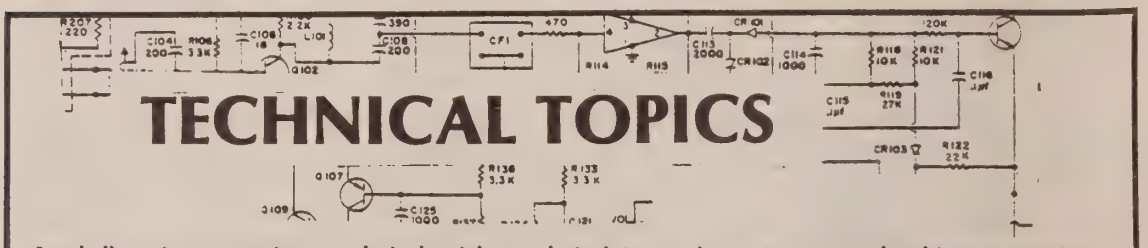
ADVANCED RAILROAD ELECTRONIC SYSTEM (ARES)

An anonymous contributor sent us a newspaper article from the Cedar Rapids (Iowa) Gazette of November 7, 1985. It described the unveiling of a new electronic system by Rockwell-Collins Air Transport Division. The equipment was installed in the cab of Burlington Northern locomotive #7822, and consists of an on-board computer connected to a receiver which picks up signals from four satellites of the Navstar Global Positioning System. The system can determine the locomotive's position within 150 feet. A VHF data link reports the train's position and speed to the dispatcher. A magnetic card reader identifies the employees who operate the locomotives; the computer verifies that they are authorized employees and keeps track of their run for payroll purposes.

A computer screen in the locomotive cab shows the terrain for the next 10 miles, including information on grades, curves, and speed restrictions. The system tells the engineer what speed the train should operate at, in order to arrive at the next meeting point on time. Arriving too early at a siding would waste fuel; arriving too late would cause delay to the train going in the opposite direction. The status of each locomotive in the consist can be monitored, and maintenance problems are brought to the engineer's attention.

Rockwell planned to test the system on 250 miles of Burlington Northern track to prove fuel and cost efficiency. This summer it will provide a demonstration to Norfolk Southern in Georgia.

That's all for this month—see you next time... —Gary & Bill



TECHNICAL TOPICS

Send all equipment reviews, technical articles, technical tips, and questions on such subjects as receivers, antennas, preamps, accessory equipment, repeaters, links, tones, scramblers, non-voice data transmissions to:

Stephen A. Kayworth, 21551 Kapok Circle, Boca Raton, FL 33433

PRIVATE RADIO CHANNELS
Do They Really Exist?

I once had a customer for whom I had just installed a new two-way radio system, and as I was explaining the various functions of the radio to him, he stopped me and excitedly pointed to a button on his control head that said 'Private Line On/Off.' "Does this mean I'm going to have my own private channel?" he asked. I hated to be the one to break the bad news to him, but someone had to do it. I explained that there were few, if any, radio users that had their own private radio channel. Although somewhat dismayed by this news, the customer was none-the-less glad to have a new fleet of radio dispatched vehicles, and he went on his merry way.

Although exceptions can be found, it is generally true that any two-way radio user should expect to have at least one other user on his channel. With so many people desiring radio spectrum space, it is inevitable that this would happen.

Sharing a radio channel is very much like sharing a party telephone line. All of the same kinds of problems exist too. If someone is using the line, you have to wait till they are through. If one party constantly 'hogs' the line, hard feelings can develop among the other people on the line.

One problem that doesn't exist on a party telephone line, though, is that of having to listen to all that is said on the line all day long. It would become very tiresome to have to listen to your neighbor's coversations all day long. The same is true of shared radio channels. In a business environment, this type of distraction can really cut into the productivity of the employees having to listen to it.

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In the case of the party telephone line, you have only to put the phone back on the hook to stop listening to the neighbor up the street expaining "the operation" for the tenth time, but how do you keep the conversation between the building contractor and his foreman from blasting throughout your office via the radio system's speaker?

The answer to this last question can be given in two words: "Private Line," "Channel Guard," or "Quiet channel." These terms are all names used by various two-way radio manufacturers for a method which allows more than one user to share a channel without having to listen to each other's transmissions. The generic term for this technology is Continuous Tone Code Squelch System or CTCSS for short. The terms "Private line," "Channel Guard," and "Quiet Channel" are trademarks used by Motorola, General Electric, and RCA respectively, but the term "PL," which is short for Private Line, has become the most common way of refering to CTCSS. For simplicity sake, I'll use the term "PL" from here on.

A radio system which uses PL involves the sending and receiving of what are called subaudible tones. They are called subaudible because in a normal radio system, although they are present, they are not heard. These tones generally fall between 67 and 201.5 Hertz. The normal audio range of a two-way radio is between 300 and 3000 Hertz. Since the subaudible tones fall below 300 Hertz, they will not be heard at the speaker.

The whole PL process begins at the transmitter and ends in the receiver. Whenever the transmitter is switched on, a circuit in the transmitter causes a tone to be sent along with the voice transmission. This tone is sent continuously until the transmitter is switched off. The frequency of the tone that is sent will be one of 30 EIA-standard frequencies in the

range mentioned above. At the receiver, the tone is detected and used to activate the squelch circuity so that the received signal can be passed to the speaker.

Supposing two companies are sharing a frequency and they both have PL type radio systems. How does PL keep them from hearing each other? The answer lies in the frequency of the PL tone that is sent by the transmitters in the system. One standard PL tone is 103.5 Hertz. Assume that all the transmitters belonging to company #1 transmit this tone. In all the receivers belonging to company #1, there is a circuit with will only respond if it detects the same tone of 103.5 Hertz. It will not respond if any other tone is sent or if no tone is sent. Once the receiver detects the proper tone, the squelch circuit is activated and the voice signal comes through the speaker.

Now, suppose company #2 is using a PL tone of 123.0 Hertz. All the receivers belonging to company #2 will be able to detect this tone and hear their own transmissions. Whenever anyone from company #1 transmits, the PL tone will be wrong for company #2 radios, and nothing will be heard. In this way, these two companies can share the same frequency without having to listen to each other. Keep in mind, however, that this does not mean that both companies can use the channel at the same time.

Just like on a party telephone line, only one conversation can take place at a time. How do you know if the line is busy? Well, you just pick up the phone and listen. If you hear voices you know you have to wait and try again later. It's the same with a PL radio system. There must be some way of monitoring the channel before transmitting. Otherwise, you might inadvertently talk over someone else trying to use the channel. The FCC requires that all radio systems using PL must have some means of monitoring the channel before transmitting so that this does not occur. This is usually accomplished by means of a switch on the radio or some other automatic means such as a microphone holder that automatically causes the receiver to switch to the monitor mode whenever the microphone is picked up. In this way the channel can be monitored for acrivity before transmitting and bad feelings between co-users can be avoided.

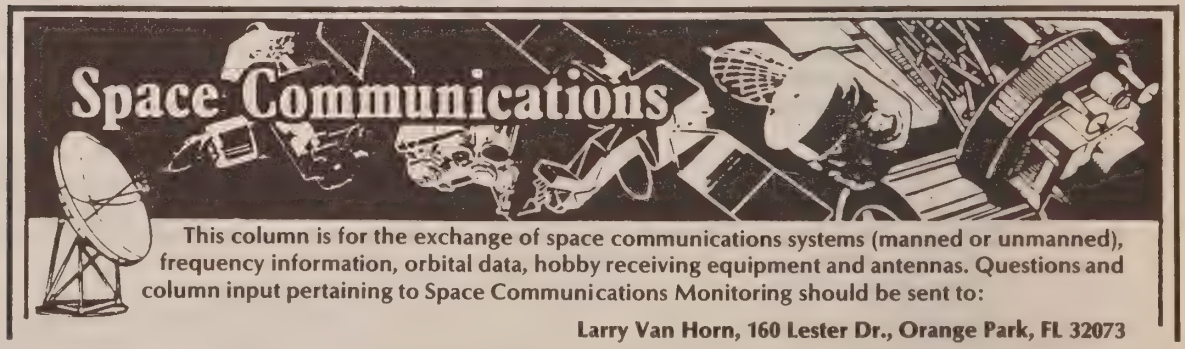
In recent years, another type of PL system has become common. It was developed by Motorola and is called DPL. Before you read on, can you guess what the "D" stands for. If you guessed "digital," you were right. Somehow you knew that was coming didn't you. Everything is going digital these days. Digital PL works on the same principle as Tone PL, but instead of sending and receiving tones, the DPL system sends and receives Binary Coded Decimals made up of 3 words which are 3 bits each in length.

Will the use of tone PL or Digital PL in a radio system affect your ability to monitor it? In general, the answer to that question is no. Most scanners are of the carrier squelch type. This means that whatever is on a channel can be heard regardless of whether it is a PL system or not. You might notice, however, that on some signals, you hear a low pitched tone. What you might be hearing is the PL tone being transmitted. Scanners don't have the type of filtering that would filter out the PL tone, so sometimes it comes through all the way to the speaker. If you hear a low pitch rumble that seems to waver a bit, you might be listening to a Digital PL signal. Chances are that you have heard both at one time or another since there are very few radio system operating these days that don't use some type of PL.

I hope this month's column has shed some light on a subject that may have been new to many of you. See if you can detect the presence of Tone or Digital PL the next time you are spending some time on the bands.

'till next time

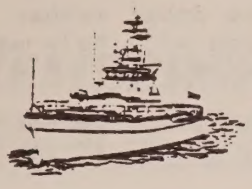
Steve



This column is for the exchange of space communications systems (manned or unmanned), frequency information, orbital data, hobby receiving equipment and antennas. Questions and column input pertaining to Space Communications Monitoring should be sent to:

Larry Van Horn, 160 Lester Dr., Orange Park, FL 32073

NO COLUMN THIS MONTH



VHF MARINE

Send information, articles, frequencies and their use, and questions that relate to private, commerical, and Coast Guard VHF maritime and inland waterways radio communications to:

Emmett L. Baxter, Jr., 4122 Granby St., Norfolk, VA 23504

Hello and welcome to your February 1986 VHF Marine Column.

Our first report comes from Cliff (Ca-A1-029). His report is on the Coast Guard in the San Francisco Bay area concerning the Air Stations and more. Cliff says that his information was provided by station personnel.

1) San Francisco C.G. Air Station opened in the early 1940's

2) U.S.C.G. is part of the Department of Transportation.
   Maritime Defense Zones = Pacific & Atlantic
   (San Francisco is part of the 12th. Coast Guard District)

3) The U.S.C.G. is divided into Air Stations,not squadrons.

4) San Francisco Air Station has the following units based there:
   3 each H-52 Helicopters (1963 vintage,80 knots,90 mile range,three (3) man crews (Pilot,Co-Pilot & Mechanic) ID'S # 1366,1388 & 1395.

5) Sacramento Air Station (McLellan Air Force Base) has based there:
   3 each C-130 Aircraft
   4 each Falcon Jets (Small "Lear Type")
   NOTE: San Francisco Air Station is going to get 4 each HH-3 Helicopters in June 86 to replace the old H-52 Helos. The U.S.C.G. has some HH-65 Helos (French made),but San Frncisco is not due to receive any.

6) U.S.C.G. "Pacific" Oil Spill Strike Team based at the old "Hamilton A.F.B. other Strike Teams are "Gulf and "Atlantic".

7) U.S.C.G. Loran = Long Range Aid to Navigation

8) Some of the prime U.S.C.G. responsibilities are:
   Search & Rescue (S.A.R)
   The local Rescue Coordination Center (RCC) is located at Coast Guard Island (The old Govt. Island)
   Main Rescue Center is at Scott A.F.B.

9) USCG Vessels:

High Endurance Cutter	(WHEC)	378 ft.
Medium Endurance	(WMEC)	210 ft.
Cutter	(WPB)	95 ft.
Cutter	(WPB)	82 ft.
Patrol Boats	The first two digits of bow number indicate length.	
Speed boat		30 ft.

10) Radio Frequencies:

VHF 157.050
157.100
(and just about anything else they desire)
UHF 381.8 (San Francisco Air Station)
HF 5692 and 5696

**********Editors Note: You have probably noted that the above report contains a lot of aircraft information. But the information is about the Coast Guard only and I believe that it is necessary to have a complete understanding of the Coast Guard and its activities to get the full view of its marine service and all Coast Guard information should come to this column as advised in other places in the newsletter.

Well it looks like a short column since I have no other member input to print. I feel sorry for this and hope that you will help me in the future. This column needs reader input to survive.

Well I will see you next month with some information. I am hoping that some will be sent in and I'll be by my Christmas Business rush and I can research some material.

RCMA MEW MEMBERSHIP LIST

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VA 102 - J.H. TURNER JR;709 W 49TH ST;RICHMOND;VA;23225

MEMBERSHIP CARDS AND BADGES

RCMA has no badges, decals, or membership cards for sale or distribution. The label on your newsletter is your membership card. While other clubs may have gimmicks or commercial good deals, our 'good deal' is your newsletter. You determine its content because you write it.

MAILING PROCEDURES

The newsletter mailed each month has a cover date for the following month. This practice is followed so that the US Post Office can deliver your issue no later than the first of the month designated on the cover.

New members whose applications are received before the end of the month will begin receiving the newsletter the following month. The first issue will be dated the month after that — as described above.

RENEWAL PROCEDURES

During the month your membership — and therefore your newsletter delivery — is due to expire, you will receive a renewal notice in the form of a postcard. It contains all the information you need to continue receiving the newsletter.

Renewal checks and new membership applications received by RCMA's General Manager, P.O. Box 542, Silverado, CA 92676, are processed for deposit on a weekly basis. Actual computer updating is done at the end of each month. If your check/MO is received after this cut-off date, you will miss the next issue of the newsletter and your new renewal date will be moved back accordingly.

PRORATED MEMBERSHIPS

Due to postage costs and other considerations, membership applications or renewals for any sum less than the current rate are prorated accordingly. This means that the renewal date will be due in less than a year. Please do not send more money to finish the year; just renew when your prorated date comes up.

Also because of postage costs, RCMA cannot comply with member requests to supply back issues free of additional charge (see the monthly Calendar section regarding ordering of back issues). If a late renewal results in a missed issue, the newsletter can be ordered from RCMA's secretary.

ADDRESS CHANGES

MEMBER notifications of address changes are also updated at the end of each month. If this type of address change notice arrives after the cut-off date, the mailing label will not reflect the new address until the following month.

The newsletter is mailed 3rd class under a bulk mail permit. When a member's address change is supplied by the POST OFFICE (instead of by the member), the charge to the club is 30¢.

SPECIAL FREQUENCY REQUESTS

Get in touch with your local RCMA group (see monthly Calendar section for chapter listings) or use the Contact/Information Wanted column for frequencies in your area. RCMA is not yet set up for national distribution of frequencies, although ultimately, the 'big picture' could include copies of the FCC and IRAC data bases, a fast computer, and software to select and sort in any order.

Contributions of frequencies and other material must be sent to the appropriate newsletter editor. (Editors use their own discretion in printing material sent them by non-members.) Data sent to P.O. Box 4563 is always subject to delay and sometimes cannot be forwarded because of postage costs.

DISCLAIMER

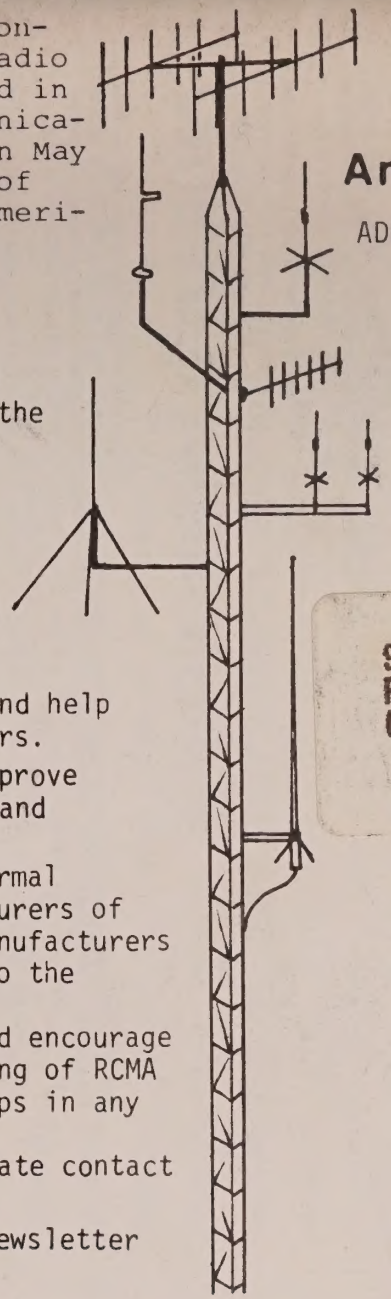
RCMA is a non-profit club for scanner enthusiasts. Neither RCMA or its newsletter are affiliated with, participate in the management of, or are responsible for, any other organization or publication. This disclaimer includes application to POLICE CALL, an annual publication put out by RCMA's good friend Gene Hughes. Queries about this publication cannot be answered by RCMA.

PLEASE REMEMBER — When writing to RCMA for any reason, include your membership number. Use it on your correspondence, checks, or money orders. RCMA tries hard to be responsive to your questions/problems. Using your membership number when you write helps us be of help to you.

The Radio Communications Monitoring Association is a radio club for persons interested in listening to two-way communications. RCMA was founded in May 1975 and is a Full Member of the Association of North American Radio Clubs (ANARC).

The goals of RCMA are:

1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening.
2) To try to be knowledgeable about two-way radio systems and operations.
3) To promote an understanding of the legal and ethical uses of monitor receivers.
4) To share information with and help other monitor radio listeners.
5) To try to understand and improve receivers, antenna systems and related equipment.
6) To offer suggestions and formal recommendations to manufacturers of monitor receivers and to manufacturers of other products related to the hobby.
7) To offer suggestions for and encourage the organizing and conducting of RCMA meetings and tours for groups in any geographic area.
8) To encourage and to facilitate contact between members.
9) To publish a regular club newsletter devoted to the hobby.



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